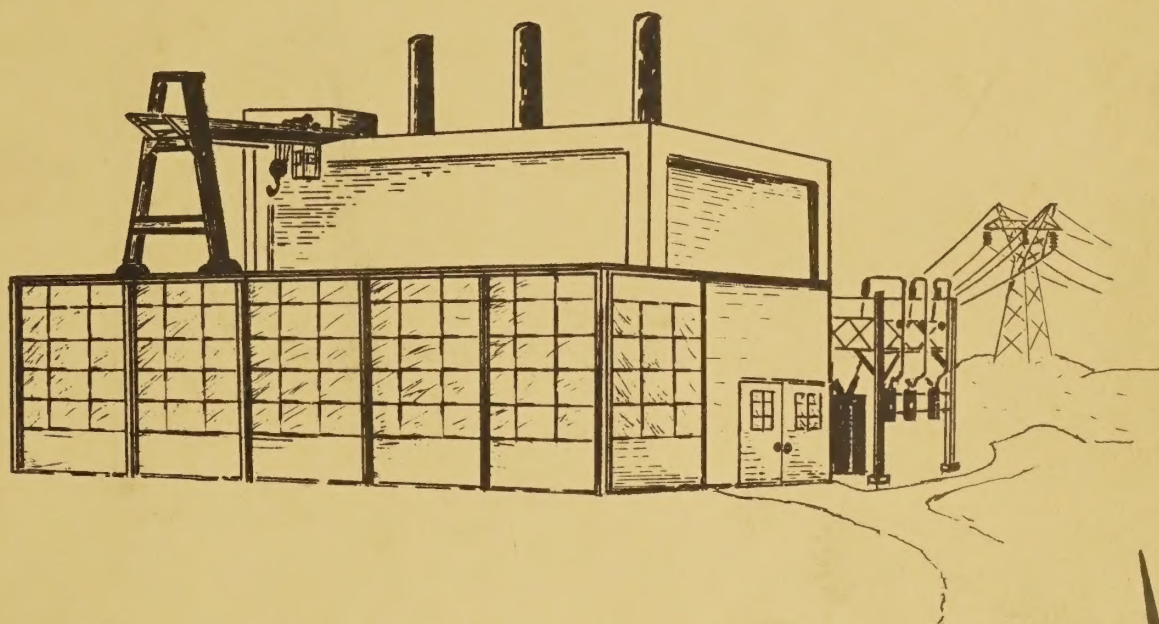




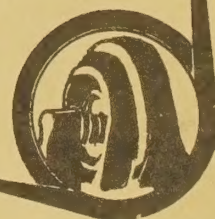
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INSTRUCTIONS FOR THE PREPARATION OF OPERATING REPORTS ON GENERATION AND TRANSMISSION FACILITIES



UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL ELECTRIFICATION ADMINISTRATION
WASHINGTON, D.C.

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Instructions for the Preparation of Operating Reports
on Generation and Transmission Facilities

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Statement for the Department of Justice
in the case of the United States vs. John Doe

Page

1

That I, John Doe, do hereby certify that the
above is a true and correct copy of the
original as the same appears in the
files of the Department of Justice
and that the same is a true and correct
copy of the original as the same appears
in the files of the Department of Justice

PART I

Purpose and General Instructions

The Purpose of a Monthly Report

One of the primary tools for the successful management of a cooperative, or of any other business enterprise, is an effective reporting procedure. Management must have reports which assemble the data from each month's operations in order to present a clear and concise picture of the financial status of the organization. In addition, a power generation and transmission organization must have information on the operation of its various generating plants and of its transmission system. In the case of the REA-financed borrower, the Administrator must be furnished this type of information in order to assure himself that the borrower is fulfilling its purpose of providing sufficient power to its members at the lowest practicable cost, and that it is still not jeopardizing its ability to repay the loan made to it by the Government.

The Monthly Operating Report Summary and the Monthly Plant Operating Reports are designed to fulfill both of these requirements. The preparation of these reports should be considered, not merely as an obligation to REA, but as an opportunity for the borrower management to review the status and operations of its own system. While REA requires these reports to fulfill its own responsibility, the borrower's management will find that they contain nearly all the information necessary to interpret the borrower's condition, and can be of great assistance to directors and manager in solving management problems.

The new Monthly Reports are known as REA Form ADM-39 and now consist of the following sections:

Monthly Operating Report Summary

Form ADM-39A Financial Statement consisting of; Balance Sheet,
Utility Plant, and Statement of Revenue and Expense
Form ADM-39B Operating Expense Statement
Form ADM-39C Disposition of Electric Energy Generated and
Purchased
Form ADM-39D Energy Generated, Purchased, Interchanged-In

Monthly Plant Operating Report

Form ADM-39E1 Plant Report-Steam-Electric Generating Plant
Form ADM-39E2 Plant Report-Hydro-Electric Generating Plant
Form ADM-39E3 Plant Report-Internal Combustion-Electric
Generating Plant
Form ADM-39E4 Transmission Plant Report

Annual Cost of Utility Plant Report - Form ADM-39F

Forms ADM-39A through 39E4 shall be submitted to REA at the end of each calendar month. Form ADM-39F shall be submitted to REA at the end of each calendar year with the regular December report.

Power Type Borrowers are to submit the Monthly Operating Report Summary and the Monthly Generation and Transmission Plant Operating Reports, applicable to their system, at the end of each month. The Annual Cost of Utility Plant Report is to be submitted at the end of each calendar year.

Selected Distribution Borrowers having Generation Facilities are to submit only the Power Generation Report (Form ADM-39D) and the Monthly Generating Plant Operating Reports, applicable to their systems, at the end of each month. (Form ADM-39E4 shall not be submitted.) The Annual Cost of Utility Plant Report (Form ADM-39F), exclusive of the transmission items indicated therein, is to be submitted at the end of each calendar year.

All of the above reports shall be submitted in duplicate to the:

Power Management Section, Power Division.

Care shall be taken to insure that each report is complete, including all necessary copies of bills for purchased power.

It is important that each report be accurate since it becomes a part of the permanent monthly record of the operations of your cooperative. Data from it are presented in official REA publications and reports. They also become the basis for comparison of cooperatives with established standards of the electric industry. In cases where actual data are not available, estimates should be used with an explanation as to why the data were not available. A statement in regard to the basis of the estimate shall be included with the report. These estimates shall be corrected as soon as possible by submitting the actual data when it becomes available.

Instructions for the preparation of this report are divided into four main parts. The four parts are as follows:

Part One - Purpose.

This section covers general instructions for the entire report.

Part Two - Instructions for the Preparation of

Forms - ADM-39A Financial Statement,
ADM-39B Operating Expense Statement,
ADM-39C Disposition of Energy,
ADM-39D Energy generated and purchased.

Part Three - Instructions for the Preparation of

Forms - ADM-39E1 Steam Plant Operating Report,
ADM-39E2 Hydro Plant Operating Report,
ADM-39E3 Internal Combustion Operating Report,
ADM-39E4 Transmission Plant Operating Report.

Part Four - Instructions for the Preparation of

Form - ADM-39F Annual Cost of Utility Plant Report.

Borrowers will be furnished with a six month's supply of report forms upon written request to the Power Management Section, Power Division.

Illustrative examples for each form are included in the instructions pertaining to each group of forms. It is believed that a study of these samples will materially assist in the preparation of the report.

Information on generating and transmission plant may be entered on the Form ADM-39E series of forms, either by the operating personnel at the plants, or by the office personnel from data provided in operating logs or other reports. A suggested procedure is to have the operating data entered in draft form by the plant personnel. Office personnel can then complete the computations of costs and prepare the final copies for submission to REA.

It will be noted that provision is made on Form ADM-39A and Form ADM-39B for comparison of the Year To Date figures with statistics from the Operating Budget, as prepared by the Borrower and approved by the Rural Electrification Administration.

PART II

Preparation of the Monthly Operating Report Summary

Form ADM-39A Financial Statement,
Form ADM-39B Operating Expense Statement,
Form ADM-39C Disposition of Energy,
Form ADM-39D Energy generated, purchased,
or interchanged-in.

Forms ADM-39A and ADM-39B - Financial Statement and Operating Expense Statement.

These reports are to be prepared at the end of each calendar month from the general ledger balances after the books have been closed. The trial balance, which was included as part of the old monthly report, is now omitted. In order to facilitate the preparation of the new report it is suggested that a trial balance register be installed. This register should be arranged in line number order and grouped in a form similar to the Detailed Outline of Accounts at the end of Part II, to produce monthly totals which can be taken directly into the report. Sufficient space should be left between the groups to allow for the addition of new accounts which might be opened during the year. Both month and year to date columns should be provided for the revenue and expense accounts for each month.

Explanation of the accounts or other data comprising each line of the report is outlined in both condensed and detailed form. The detailed outline is given separately at the end of Part II. The condensed outline is included as part of the instructions for the preparation of each schedule as follows:

CONDENSED OUTLINE OF LINE TOTALS

Schedule A - Balance Sheet

Line Number	Explanation
1	Total from "Schedule B" Line 14.
2	Accounts 100.31, 100.32.
3	Account 100.5
4	Account 108.
5	Sum of Lines 1 thru 4.
6	Total from "Schedule B" Line 26.

Schedule A - Balance Sheet (continued)

Line Number	Explanation
7	Line 5 minus Line 6.
8	Accounts 120.1, 122.
9	Account 120.2.
10	Accounts 120.3, 120.4, 120.5.
11	Accounts 114.1, 114.2, 114.3.
12	Accounts 110, 111, 112.
13	Accounts 121, 123.
14	Account 124.
15	Account 254.1.
16	Accounts 125.1, 125.2, 125.3, 128, 129, less 22.4.
17	Accounts 254.2, 254.3.
18	Accounts 131.1, 131.2.
19	Accounts 132.1, 132.2, 133.
20	Sum of Lines 8 thru 19.
21	Account 141.
22	Accounts 140, 142, 143, 144, 145, 146.
23	Sum of Lines 21 and 22.
24	Sum of Lines 7, 20 and 23.
25	Accounts 200.1, 200.2 less 127.
26	Accounts 200.1, 201.2 less 152.
27	Sum of Lines 25 and 26.
28	Accounts 213.11, 213.12, 213.3, less 134.1, 135.11, 135.12.
29	Accounts 210, 213.21, 213.22, 213.4 less 134.2, 135.21, 135.22.
30	Sum of Lines 28 and 29.
31	Accounts 220, 222.1, 222.3.
32	Account 222.2.
33	Accounts 224.1, 224.2
34	Accounts 225, 226.
35	Accounts 228.1 thru 228.7.
36	Accounts 229.1 thru 229.3.
37	Account 230.2.
38	Account 230.4.
39	Accounts 227, 230.1, 230.3, 230.5, 230.6.
40	Sum of Lines 31 thru 39.
41	Accounts 241, 242.1, 242.2, 258.1, 258.2, 265.1, 265.2.
42	Accounts 272, 273.3 thru 273.5.
43	Accounts 273.1, 402.1 less 415.1.
44	From "Schedule C" Line 14.
45	Accounts 273.2, 402.2 less 415.2.
46	From "Schedule C" Line 17.
47	Sum of Lines 42 thru 46.
48	Sum of Lines 27, 30, 40, 41 and 47.

Schedule B - Electric Plant

Schedule B - Electric Plant

Line Number	Explanation
1	Account 100.2.
2	Account 100.4.
3	Accounts 301, 302, 303.
4	Accounts 310 thru 316.
5	Accounts 320 thru 326.
6	Accounts 330 thru 336.
7	Accounts 340 thru 349.
8	Accounts 350 thru 363.
9	Accounts 370 thru 379.
10	Account 391.
11	Account 392.
12	Account 393.
13	Account 100.6.
14	Sum of Lines 1 thru 13.
	Depreciation Reserves
15	Account 250.1.
16	Account 250.2.
17	Account 250.3.
18	Account 250.4.
19	Account 250.5.
20	Account 250.6.
21	Sum of Lines 15 thru 20.
	Amortization Reserves
22	Account 251.
23	Account 252
24	Sum of Lines 22 and 23.
25	Account 253.
26	Sum of Lines 24 and 25.

Schedule C - Statement of Revenue and Expense

Line Number	Explanation
1	Primary revenue accounts 600 to 615.
2	From "Schedule D" - Line 50.
3	Accounts 503.1 thru 503.6.
4	Accounts 504, 505 and 506.
5	Accounts 507.1 thru 507.7.
6	Sum of Lines 2 thru 5.
7	Line 1 less Line 6.
8	Accounts 508.1, 508.2, 509.
9	Sum of Lines 7 and 8.
10	Accounts 530.1, 530.2, 530.3.
11	Account 536.
12	Accounts 531, 535, 539.

Schedule C - Statement of Revenue and Expense (continued)

Line Number	Explanation
13	Sum of Lines 10 thru 12.
14	Line 9 less Line 13.
15	Accounts 520.1, 522, 524.1, 524.2, 525, 526.
16	Accounts 520.2, 527.
17	Line 15 less Line 16.
18	Sum of Lines 14 and 17.

Instructions for Calculating Mills per KWH

Line Number	Explanation
1	Operating Revenues and Patron's Capital. The "Mills per Net KWH" calculations for this item are based on the net kilowatt hours generated as reported immediately below Line 26, Form ADM-39B. The yearly and monthly dollar amounts are to be divided by the total net KWH for the respective periods. These calculations should be reported to the nearest hundredth of a mill. This calculation is not to be considered as the average revenue per KWH sold. It merely represents the average revenue on KWH of net generation. The average revenue for sales can be found on Form ADM-39C.
2	The mills reported for this item are obtained from Form ADM-39B, Line 50.
3	Depreciation.
5	Taxes.
7	Operating Margin.
10	Interest Long Term Debt.
11	Interest Charged to Construction - Credit.
18	Net Margin.

The calculations for these items are to be made in accordance with instructions given under Line 1.

Schedule D - Operating Expense Statement

Line Number	Explanation
1	Accounts 701, 702.1, 702.2, 702.3, 702.4.
2	Account 703.
3	Accounts 704, 705.1, 705.2, 705.3.
4	Sum of Lines 1 thru 3.
5	Accounts 706, 707, 708.1 thru 708.4, 709.1 thru 709.3.
6	Accounts 710 thru 714.
7	Sum of Lines 4, 5 and 6.
8	Accounts 715, 716.1 thru 716.4.
9	Accounts 717, 718.1 thru 718.3.
10	Sum of Lines 8 and 9.
11	Accounts 719, 720, 721, 722.1 thru 722.3, 723.
12	Accounts 724 thru 726.
13	Sum of Lines 10, 11, and 12.
14	Accounts 727, 728.1 thru 728.3.
15	Account 729.
16	Account 730.2.
17	Accounts 730.1, 730.3, 730.4.
18	Sum of Lines 14 thru 17.
19	Accounts 731, 732, 733, 734.1 thru 734.4.
20	Accounts 735, thru 736.
21	Sum of Lines 18, 19 and 20.
22	Account 738
23	Account 739 (Interchange power-in).
24	Accounts 740, 741 less 742.
25	Sum of Lines 22 thru 24.
26	Sum of Lines 7, 13, 21 and 25.
27	Accounts 743 and 744.
28	Account 745.
29	Account 746.
30	Sum of Lines 27 and 29.
31	Account 747.
32	Accounts 748, 749, 750.1, 750.2, 751.
33	Accounts 750.3, 752.
34	Sum of Lines 31 thru 33.
35	Accounts 753, 754 and 755.
36	Sum of Lines 30, 34 and 35.
37	Accounts 756, 759.1, 761, 762 and 763.
38	Accounts 764, 765, 768, 770 thru 773 and 775.
39	Account 776.
40	Sum of Lines 37, 38 and 39.
41	Accounts 780, 783 and 784.
42	Accounts 791 and 793.
43	Accounts 795 and 797.
44	Accounts 798 and 799.
45	Account 801.1.

Schedule D - Operating Expense Statement (continued)

Line Number	Explanation
46	Accounts 801.2, 801.3.
47	Accounts 802, 803.
48	Accounts 787, 789, 800, 801.4, 806, 807, 810.
49	Sum of Lines 41 thru 48.
50	Sum of Lines 26, 36, 40 and 49.

Instructions for Calculating Mills per KWH

"Net KWH" should be determined from columns 7 and 9 of Form ADM-39D and totaled separately for steam, hydro or Internal Combustion and entered in their respective spaces on Schedule D.

The mills per KWH should be calculated and reported opposite the totals of the various production items. These calculations should be carried out to the nearest hundredth of a mill.

Form ADM-39C - Disposition of Electric Energy.

In Column (1) list the name of each consumer, using the REA designation or name. Where a consumer has more than one point of delivery, list each substation serving the consumer in Column (2).

The information to be entered in Columns 3, 4, 5 and 9 is self-explanatory. The information to be entered in Column (6) will not be available until the load curve for the maximum day of the month has been computed by the Operating Department from all the various demand charts on the system. When the time of the maximum system peak has been determined the individual demands at the various substations for that same 15 minute period shall be determined from the record of the various substation demand meters at the time of system peak and then entered in Column (6). It is important that these values be determined accurately and that their sum equal the demand for the total system.

Enter next, in Column (7), in the proper space the net energy interchange from all sources for the month if it is "OUT". If the total net exchange for the month is "IN" it should be entered in the proper space on the "Energy Generated" Form, ADM-39D.

For instructions for computing the load factors shown in Column (8) see Part III, General.

The total energy sales for the month is the sum of all the individual deliveries tabulated in Column (7).

The Total Energy Requirements shown at the bottom of the page is to be taken from Form ADM-39D and is the same as the "Total Energy Delivered to Transmission System" shown at the bottom of Form ADM-39D.

The line losses are then computed by subtracting the Total Energy Sales from the Total Net Energy Requirements.

The line loss in percentage is then determined as follows:

$$\% \text{ Loss} = \frac{\text{Line Losses in kwh}}{\text{Total Net Energy Requirements}}$$

Form ADM-39D - Energy Generated, Purchased, or Interchanged-In.

List in Column (1) each generating plant owned or operated by the cooperative. These should be grouped first by steam, then hydro and then internal combustion. This arrangement is desirable so that it will be easy to get the total generation by type of plants that is required on Form ADM-39B.

Next, list any sources from which energy is purchased showing each point of connection in Column (3).

The same shall then be done for interchange energy when the total net interchange of the System for the month is "IN". This shall be entered below the list of purchase points.

When all sources from which energy is fed into the system have been listed, the maximum demand, time of demand, and demand at time of System peak, shall be filled in the same as was done on Form ADM-39C.

Net generation, energy purchased, or net energy interchanged-in shall be taken from the station log sheets, or the purchase power bills of the connected utility, as the case may be.

Mills per kwh for each plant shall be taken from Line 20 of the Monthly Plant Operating Reports (Form ADM-39E).

Mills per kwh for purchase power and interchange power should be computed from the power bills.

Mills per kwh for Total Energy Delivered and the Transmission System is determined by dividing the sum of the Total Production Costs of the various generating plants, (Line 20, Form ADM-39E) plus the cost of purchased power, by the total kwh from Columns (7) and (9) on Form ADM-39D.

DETAILED OUTLINE OF ACCOUNTS AND LINE TOTALS

Schedule A - Balance Sheet

Line Number	Account Number	
1		Electric Plant
		Total from Schedule "B" Line 14
2		Construction Work in Progress
	100.31	- Construction Work in Progress - Contract
	100.32	- Construction Work in Progress - Force Account
3		Electric Plant Acquisition Adjustments
	100.5	- Electric Plant Acquisition Adjustments
4		Other Utility Plant
	108	- Other Utility Plant
5		Total Utility Plant
		Sum of Item 1 thru 4
6		Reserves
		Total from Schedule "B" Line 26
7		Depreciated Cost of Utility Plant
		Line 5 minus Line 6
8		General Fund Cash
	120.1	- Cash - General
	122	- Petty Cash
9		REA Construction Fund Cash
	120.2	- Cash - REA Construction Fund - Trustee
10		Other Cash
	120.3	- Cash - REA Installation Loan Fund
	120.4	- Cash - Installation Loan Payment
	120.5	- Cash - Consumer's Deposits
11		Restricted Funds
	114.1	- Long-term - Debt - Fund Cash - Federal Agencies
	114.2	- Renewal and Replacement Fund - Cash
	114.3	- Other Special Fund - Cash
12		Investments
	110	- Other Physical Property
	111	- Investments in Associated Enterprises
	112	- Other Investments
13		Temporary Cash Investments

Schedule A - Balance Sheet (continued)

Line Number	Account Number	
	121	- Special Deposits
	123	- Temporary Cash Investments
14		Notes Receivable
	124	- Notes Receivable
15		Reserves for Uncollectables - Notes Receivable
	254.1	- Reserve for Uncollectable Notes Receivable
16		Accounts Receivable
	125.1	- Accounts Receivable Electric Consumers
	125.2	- Other Accounts Receivable
	125.3	- Accounts Receivable - REA Construction Fund
	128	- Interest Receivable
	129	- Rents Receivable
	222.4	- Accounts Payable to the REA Construction Fund
17		Reserves for Uncollectables - Accounts Receivable
	254.2	- Reserve for Uncollectable Accounts - Electric Consumers
	254.3	- Reserve for other Uncollectable Accounts
18		Materials and Supplies
	131.1	- Materials and Supplies - Electric
	131.2	- Materials and Supplies - Resale
19		Prepayments and Accruals
	132.1	- Prepayments - Insurance
	132.2	- Other Prepayments
	133	- Other Current and Accrued Assets
20		Total Current and Accrued Assets
		Sum of Lines 8 thru 19
21		Extraordinary Property Losses
	141	- Extraordinary Property Losses
22		Other Deferred Debits
	140	- Unamortized Loan Expense
	142	- Preliminary Survey and Investigation Charges
	143	- Clearing Accounts
	144	- Retirement Work in Progress
	145	- Other Work in Progress
	146	- Other Deferred Debits
23		Total Deferred Debits
		Sum of Lines 21 and 22
24		Total Assets and Other Debits
		Sum of Lines 7, 20 and 23
25		Membership Fees
	200.1	- Memberships Issued
	200.2	- Memberships Subscribed but Unissued
	127	- Membership Subscriptions Receivable

Schedule A - Balance Sheet (continued)

Line Number	Account Number	
26		Patronage Capital Credits
	201.1	- Patrons' Capital Credits
	201.2	- Patronage Capital Assignable
	152	- Acquired Capital Credits
27		Total Patrons' Capital
		Sum of Lines 25 and 26
28		REA Construction Obligation
	213.11	- Long-term Debt - Construction Loan Contract
	213.12	- Long-term Debt - Construction Executed Notes
	213.13	- Long-term Debt - REA Installation
	134.1	- Unapplied Payments - Long-term Debt
	135.11	- Allocation Construction - Loan Contract
	135.12	- Allocation Construction - Notes Executed
29		Other Long-term Debt
	210	- Bonds
	213.21	- Long-term Debt - Installation Loan Contract
	213.22	- Long-term Debt - Installation Notes Executed
	213.4	- Other Long-term Debt
	134.2	- Unapplied Payments - Long-term Debt
	135.21	- Allocation Installation - Loan Contract
	135.22	- Allocation Installation - Notes Executed
30		Total Long-term Debt
		Sum of Lines 28 and 29
31		Accounts Payable - General
	220	- Notes Payable
	222.1	- Accounts Payable - General
	222.3	- Accounts Payable - Other
32		Accounts Payable - REA Construction
	222.2	- Accounts Payable - REA Construction
33		Patrons' Capital and Dividends Declared
	224.1	- Patronage Capital Payable
	224.2	- Patronage Refunds Payable
34		Matured Principal and Interest
	225	- Matured Long-term Debt
	226	- Matured Interest
35		Accrued Taxes
	228.1	- Accrued Property Taxes
	228.2	- Accrued U. S. Social Security Tax - Unemployment
	228.3	- Accrued U. S. Social Security Tax - Old Age Benefit
	228.4	- Accrued State Social Security Tax - Unemployment
	228.5	- Accrued State Sales Tax - Consumers
	228.6	- Accrued Income Tax
	228.7	- Accrued Taxes - Other
36		Accrued Interests
	229.1	- Interest Accrued - REA Construction Obligation
	229.2	- Interest Accrued - REA Installation Obligation

Schedule A - Balance Sheet (continued)

Line Number	Account Number	
	229.3	- Other Interest Accrued
37		Employees Incorporated, Tax Withheld
	230.2	- Accrued Employees' Income Tax Withheld
38		Accrued Insurance
	230.4	- Accrued Insurance
39		Other Current and Accrued Liabilities
	227	- Consumers' Deposits
	230.1	- Accrued Rentals
	230.3	- Accrued Payroll
	230.5	- Accrued Employees Vacations and Holidays
	230.6	- Miscellaneous Current and Accrued Liabilities
40		Total Current and Accrued Liabilities
		Sum of Lines 31 thru 39
41		Deferred Credits
	241	- Consumers' Advances for Construction
	242.1	- Consumers' Energy Prepayment
	242.2	- Miscellaneous Deferred Credits
	258.1	- Miscellaneous Operating Margin Reserves
	258.2	- Miscellaneous Non-Operating Margin Reserves
	265.1	- Contributions in Aid of Construction
42		Other Capital
	272	- Donated Capital
	273.3	- Capital Gains and Losses
	273.4	- Retired Capital Credits - Gain
	273.5	- Other margins
43		Operating Margin (previous years)
	273.1	- Operating Margins
	402.1	- Miscellaneous Credits to Patronage Capital
	415.1	- Miscellaneous Debits to Patronage Capital
44		Operating Margin (current year)
		From Schedule "C" Line 18
45		Non-Operating Margin (previous year)
	273.2	- Non-Operating Margins
	402.2	- Miscellaneous Credits to Other Equities
	415.2	- Miscellaneous Debits to Other Equities
46		Non-Operating Margin (current year)
		From Schedule "C" Line 17
47		Total Margins and Other Equities
		Sum of Lines 42 thru 46
48		Total Liabilities and Other Credits
		Sum of Lines 27, 30, 40, 41 and 47

Schedule B - Electric Plant

Line Number	Account Number	
1		Electric Plant Leased to Others
	100.2	- Electric Plant Leased to Others
2		Electric Plant Held for Future Use
	100.4	- Electric Plant Held for Future Use
3		Intangible Plant
	301	- Organization
	302	- Franchises and Consents
	303	- Miscellaneous Intangible Plant
4		Production Plant - Steam
	310	- Land and Land Rights
	311	- Structures and Improvements
	312	- Boiler Plant Equipment
	313	- Engines and Engine Driven Generators
	314	- Turbo-Generator Units
	315	- Accessory Electric Equipment
	316	- Miscellaneous Power Plant Equipment
5		Production Plant - Hydro
	320	- Land and Land Rights
	321	- Structures and Improvements
	322	- Reservoirs, Dams, and Water Ways
	323	- Waterwheels, Turbines and Generators
	324	- Accessory Electric Equipment
	325	- Miscellaneous Power Plant Equipment
	326	- Roads, Railroads and Bridges
6		Production Plant - Internal Combustion
	330	- Land and Land Rights
	331	- Structures and Improvements
	332	- Fuel Holder, Producers and Accessories
	333	- Internal Combustion Engines
	334	- Generators
	335	- Accessory Electric Equipment
	336	- Miscellaneous Power Plant Equipment
7		Transmission Plant
	340	- Land and Land Rights
	341	- Clearing Land and Right-of-Way
	342	- Structures and Improvements
	343	- Station Equipment
	344	- Towers and Fixtures
	345	- Poles and Fixtures
	346	- Overhead Conductors and Devices
	347	- Underground Conduit
	348	- Underground Conductors and Devices
	349	- Roads and Trails

Schedule B - Electric Plant (continued)

Line Number	Account Number	
8		Distribution Plant
	350	- Land and Land Rights
	351	- Structures and Improvements
	352	- Station and Storage Battery Equipment
	354	- Poles, Towers and Fixtures
	355	- Overhead Conductors and Devices
	356	- Underground Conduit
	358	- Line Transformers
	359	- Services
	360	- Meters
	361	- Installations on Consumers' Premises
	362	- Leased Property on Consumers' Premises
	363	- Street Lighting and Signal Systems
9		General Plant
	370	- Land and Land Rights
	371	- Structures and Improvements
	372	- Office Furniture and Equipment
	373	- Transportation Equipment
	374	- Stores Equipment
	375	- Shop Equipment
	376	- Laboratory Equipment
	377	- Tools and Work Equipment
	378	- Communications Equipment
	379	- Miscellaneous Equipment
10		Electric Plant Purchased
	391	- Electric Plant Purchased
11		Electric Plant Sold
	392	- Electric Plant Sold
12		Donations in Aid of Construction (credit)
	393	- Donations in Aid of Construction - Credit
13		Unclassified Plant In Service
	100.6	- Unclassified Electric Plant In Service
14		Total Electric Plant
		Sum of Lines 1 thru 13
		Depreciation Reserves
15		Reserve for Depreciation - Steam Plant
	250.1	- Reserve for Depreciation of Steam Production Plant
16		Reserve for Depreciation - Hydro Plant
	250.2	- Reserve for Depreciation of Hydraulic Production Plant
17		Reserve for Depreciation - Internal Combustion Plant

Schedule B - Electric Plant (continued)

Line Number	Account Number	
	250.3	- Reserve for Depreciation of Internal Combustion Engine Plant
18		Reserve for Depreciation - Transmission Plant
	250.4	- Reserve for Depreciation of Transmission Plant
19		Reserve for Depreciation - Distribution Plant
	250.5	- Reserve for Depreciation of Distribution Plant
20		Reserve for Depreciation - General Plant
	250.6	- Reserve for Depreciation of General Plant
21		Total Depreciation Reserves Sum of Lines 15 thru 20
Amortization Reserves		
22		Reserve for Amortization - Limited-Term Electric Investments
	251	- Reserve for Amortization of Limited-Term Electric Investments
23		Reserve for Amortization of Electric Plant Acquisition Adjustment
	252	- Reserve for Amortization of Electric Plant Acquisition Adjustment
24		Total Amortization Reserves Sum of Lines 22 and 23
25		Reserve for Depreciation and Amortization of other Property
	253	- Reserve for Depreciation and Amortization of other Property
26		Total Reserve Depreciation and Amortization Sum of Lines 24 and 25

Schedule C - Statement of Revenue and Expense

1		Operating Revenues and Patrons' Capital
	600	- Residential Electric Service
	601.1	- Rural Electric Service - Farm
	601.2	- Rural Electric Service - Non-Farm
	602.1	- Commercial and Industrial Electric Service - Small
	602.2	- Commercial and Industrial Electric Service - Large
	603	- Public Street and Highway Lighting
	605	- Electric Service to Electric Utilities
	606	- Electric Service to Other REA Cooperatives
	608	- Other Electric Service
	610	- Rent from Electric Property
	612	- Consumers' Forfeited Discounts and Penalties
	615	- Miscellaneous Electric Revenues

Schedule C - Statement of Revenue and Expense (continued)

Line Number	Account Number
2	Operating Expenses (Line 50, Schedule D) From Schedule D - Line 50
3	Depreciation
	503.1 - Depreciation of Steam Production Plant
	503.2 - Depreciation of Hydraulic Production Plant
	503.2 - Depreciation of Internal Combustion Engine Plant
	503.4 - Depreciation of Transmission Plant
	503.5 - Depreciation of Distribution Plant
	503.6 - Depreciation of General Plant
4	Amortization of Intangibles, Adjustments, etc.
	504 - Amortization of Limited-Term Electric Investments
	505 - Amortization of Electric Plant Acquisition Adjustments
	506 - Property Losses Chargeable to Operations
5	Taxes
	507.1 - Taxes Property
	507.2 - Taxes - U. S. Social Security - Unemployment
	507.3 - Taxes - State Social Security - Old Age Benefits
	507.4 - Taxes - State Social Security - Unemployment
	507.5 - Taxes - State Sales - Consumers
	507.6 - Taxes - Income
	507.7 - Taxes - Other
6	Total Operating Revenue Deductions Sum of Lines 2 thru 5
7	Operating Margin Line 1 less Line 6
8	Other Operating Income
	508.1 - Revenues from Plant Leased to Others
	508.2 - Expenses of Plant Leased to Others
	509 - Other Utility Operating Income
9	Total Utility Operating Margin Sum of Lines 7 and 8
10	Interest on Long-term Debt
	530.1 - Interest on REA Construction Loan
	530.2 - Interest on REA Installation Loan
	530.3 - Interest on REA Other Long-term Debt
11	Interest Charged to Construction - Credit
	536 - Interest Charged to Construction - Credit
12	Other Income Deductions
	531 - Amortization of Loan Expense
	535 - Other Interest Charges
	539 - Miscellaneous Income Deductions
13	Total Income Deductions Sum of Lines 10 thru 12

Schedule C - Statement of Revenue and Expense (continued)

Line Number	Account Number	
14		Net Operating Margin Line 9 less Line 13
15		Non-Operating Revenue
	520.1	- Revenue from Merchandising Sales
	522	- Revenues from Lease of Other Physical Property
	524.1	- Interest on Securities Owned
	524.2	- Other Interest Revenues
	525	- Revenues from Sinking and Other Funds
	526	- Miscellaneous Non-Operating Revenues
16		Non-Operating Revenue Deductions
	520.2	- Merchandising Revenue Deductions
	527	- Non-Operating Revenue Deductions
17		Non-Operating Margin Line 15 less Line 16
18		Net Margin Line 14 plus 17

Schedule D - Operating Expense Statement

Production Expense

		Steam Production
1		Operation - Supervision, Engineering, Labor
	701	- Operation, Supervision and Engineering
	702.1	- Boiler Labor
	702.2	- Prime Mover and Generator Labor
	702.3	- Electric Labor
	702.4	- Miscellaneous Station Labor
2		Operation - Fuel
	703	- Fuel
3		Water, Supplies and Expenses
	704	- Water
	705.1	- Lubricants
	705.2	- Station Supplies
	705.3	- Station Expenses
4		Total Operation Sum of Lines 1 thru 3
5		Maintenance
	706	- Maintenance Supervision and Engineering
	707	- Maintenance of Structures and Improvements
	708.1	- Maintenance of Coal Storage, Handling and Weighing Equipment
	708.2	- Maintenance of Furnaces and Boilers
	708.3	- Maintenance of Boiler Apparatus
	708.4	- Maintenance of Steam Piping and Accessories

Schedule D - Operating Expense Statement (continued)

Line Number	Account Number	
	709.1	- Maintenance of Prime Movers and Generators (314)
	709.2	- Maintenance of Accessory Electric Equipment (315)
	709.3	- Maintenance of Miscellaneous Power Plant Equipment (316)
6		Miscellaneous
	710	- Rents
	711	- Steam From Other Sources
	712	- Steam Transferred - Credit
	713	- Joint Expenses - Debit
	714	- Joint Expenses - Credit
7		Total Steam Production Expense
		Sum of Lines 4, 5 and 6
		Hydraulic Production
8		Operation - Supervision, Engineering, Labor
	715	- Operation Supervision
	716.1	- Hydraulic Labor
	716.2	- Prime Mover and Generator Labor
	716.3	- Electric Labor
	716.4	- Miscellaneous Station Labor
9		Operation - Supplies and Expenses
	717	- Water for Power
	718.1	- Lubricants
	718.2	- Station Supplies
	718.3	- Station Expenses
10		Operation - Total Operation
		Sum of Lines 8 and 9
11		Maintenance
	719	- Maintenance, Supervision and Engineering
	720	- Maintenance of Structures and Improvements
	721	- Maintenance of Reservoirs, Dams and Waterways
	722.1	- Maintenance of Prime Movers and Generators (323)
	722.2	- Maintenance of Accessory Electric Equipment (324)
	722.3	- Maintenance of Miscellaneous Power Plant Equipment (325)
	723	- Maintenance of Roads, Railroads and Bridges
12		Miscellaneous
	724	- Rents
	725	- Joint Expenses - Debit
	726	- Joint Expenses - Credit
13		Total Hydraulic Production Expense
		Sum of Lines 10, 11 and 12
		Internal Combustion Production
14		Operation - Supervision, Engineering, Labor
	727	- Operation Supervision and Engineering
	728.1	- Engine Labor

Schedule D - Operating Expense Statement (continued)

Line Number	Account Number
	728.2 - Electric Labor
	728.3 - Miscellaneous Station Labor
15	Operation - Fuel
	729 - Engine Fuel
16	Lubricants
	730.2 - Lubricants
17	Operation Other Supplies and Expenses
	730.1 - Water
	730.3 - Lubricants
	730.4 - Station Expenses
18	Total Operation
	Sum of Lines 14 thru 17
19	Maintenance
	731 - Maintenance Supervision and Engineering
	732 - Maintenance of Structures and Improvements
	733 - Maintenance of Fuel Holders, Producers and
	Accessories
	734.1 - Maintenance of Engines (333)
	734.2 - Maintenance of Generators (334)
	734.3 - Maintenance of Accessory Electric Equipment (335)
	734.4 - Maintenance of Miscellaneous Power Plant Equipment
20	Miscellaneous
	735 - Rents
	736 - Joint Expenses - Credit
21	Total Internal Combustion Production Expense
	Sum of Lines 18, 19 and 20
	Other Production Expense
22	Purchased Power
	738 - Purchased Power
23	Interchange Power
	739 - Interchange Power-In
24	Other Production Expense
	740 - Other Expenses
	741 - Joint Expenses - Debit
	742 - Joint Expenses - Credit
25	Total Other Production Expense
	Sum of Lines 22 thru 24
26	Total - Production Expense
	Sum of Lines 7, 13, 21 and 25

Schedule D - Operating Expense Statement (continued)

Line Number	Account Number	
Transmission Expense		
27		Operation - Supervision, Engineering, Load Dispatching
	743	- Operation Supervision and Engineering
	744	- Load Dispatching, Labor and Expenses
28		Operation, Substations
	745	- Operating of Stations
29		Operation, Lines
	746	- Operation of Lines
30		Total Operation
		Sum of Lines 27 thru 29
31		Maintenance - Supervision and Engineering
	747	- Maintenance Supervision and Engineering
32		Structures, Station Equipment
	748	- Maintenance of Structures and Improvements
	749	- Maintenance of Station Equipment
	750.1	- Maintenance of Towers and Fixtures
	750.2	- Maintenance of Poles and Fixtures
	751	- Maintenance of Underground
33		Lines, Roads and Trails
	750.3	- Maintenance of Conductors and Devices
	752	- Maintenance of Roads and Trails
34		Total Maintenance
		Sum of Lines 31 thru 33
35		Miscellaneous - Rents, etc.
	753	- Rents
	754	- Joint Expenses - Debit
	755	- Joint Expenses - Credit
36		Total Transmission Expense
		Sum of Lines 30, 34 and 35
Distribution Expense		
37		Operation
	756	- Operation Supervision and Engineering
	759.1	- Operation of Stations
	761	- Operation of Lines
	762	- Services on Consumers' Premises
	763	- Operation of Street Lighting and Signal Systems
38		Maintenance
	764	- Maintenance Supervision and Engineering
	765	- Maintenance of Structures and Station Equipment

Schedule D - Operating Expense Statement (continued)

Line Number	Account Number	
	768	- Maintenance of Lines
	770	- Maintenance of Line Transformers and Devices
	771	- Maintenance of Services
	772	- Maintenance of Meters
	773	- Maintenance of Installations and Leased Property on Consumers' Premises
39	775	- Maintenance of Street Lighting and Signal Systems Miscellaneous
	776	- Rents
40		Total Distribution Expenses
		Sum of Lines 37, 38 and 39

Schedule D - Operating Expense Statement (continued)

Line Number	Account Number
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Administrative and General Expense

41		Consumers' Accounting and Collecting
	780	- Meter Reading, Accounting and Collecting
	783	- Uncollectable Accounts
	784	- Rents
42		General Office Salaries, Supplies and Expenses
	791	- General Office Salaries
	793	- General Office Expenses
43		Special Services and Regulatory Expense
	795	- Special Services
	797	- Regulatory Commission Expenses
44		Insurance, Injuries and Damages
	798	- Insurance
	799	- Injuries and Damages
45		Directors' Fees and Mileage
	801.1	- Director's Fees and Mileage
46		Dues to Associated Organizations, Donations
	801.2	- Dues Paid Associated Organizations
	801.3	- Donations
47		Maintenance of General Property, Rents, etc.
	802	- Maintenance of General Property
	803	- Rents
48		Miscellaneous General Expenses
	787	- Demonstration and Other
	789	- Merchandizing, Jobbing and Contract Work
	800	- Employees' Welfare Expenses and Insurance
	801.4	- Miscellaneous General Expenses
	806	- Duplicate Miscellaneous
	807	- Administrative and General Expenses Transferred (credit)
	810	- Stores Expense
49		Total Administrative and General Expense
		Sum of Lines 41 thru 48
50		Total Operating Expense
		Sum of Lines 26, 36, 40 and 49

MONTHLY OPERATING REPORT SUMMARY FINANCIAL STATEMENT

BORROWER
DESIGNATION Washington, D. C. 1

MONTH OF April 30 1949

SCHEDULE A. BALANCE SHEET			
ASSETS AND OTHER DEBITS		LIABILITIES AND OTHER CREDITS	
1. Electric Plant (From B-14)	\$ 19,732,405.00	25. Membership Fees	\$ 1,900.00
2. Construction Work in Progress	1,677,650.00	26. Patronage Capital Credits	162,425.00
3. Elec. Plant. Acqui. Adj.	16,452.00	27. TOTAL PATRONS' CAPITAL	\$ 164,325.00
4. Other Utility Plant	-0-	28. REA Construction Obligation	19,997,232.00
5. TOTAL ELECTRIC PLANT	\$ 21,426,507.00	29. Other Long Term Debt	-0-
6. Less: Reserves (From B-26)	1,569,265.00	30. TOTAL LONG TERM DEBT	19,997,232.00
7. DEP. COST OF ELECTRIC PLANT	\$ 19,857,242.00	31. Accounts Payable - General	131,675.42
8. General Fund Cash	77,625.62	32. Accounts Payable - REA Const't.	43,162.07
9. REA Construction Fund - Cash	151,450.12	33. Patrons' Capital and Div. Decl.	-0-
10. Other Cash	-0-	34. Matured Principal and Interest	-0-
11. Restricted Funds	62,125.00	35. Accrued Taxes	53,275.03
12. Investments	726.00	36. Accrued Interest	62,125.00
13. Temp. Cash Inves. * \$ 50,000.00	50,000.00	37. Employees Inc. Tax Withheld	1,725.08
14. Notes Receivable	-0-	38. Accrued Insurance	3,162.48
15. Res. for Uncoll.	-0-	39. Other Cur. & Acc. Liabilities	26,769.96
16. Accounts Rec.	157,614.25	40. TOTAL CURRENT & ACC. LIAB.	321,845.04
17. Res. for Uncoll.	516.00	41. Deferred Credits	7,254.51
18. Materials and Supplies	485,633.90	42. Other Capital	1,367.72
19. Prepayments and Accruals	12,625.10	43. Operating Margin (Previous Yrs.)	258,447.64
20. TOTAL CURR. AND ACC. ASSETS	\$ 997,283.99	44. Operating Margin (Current Yr.)	111,251.76
21. Extraordinary Property Losses	-0-	45. Non-Operating Margin (Previous Yrs.)	2,731.42
22. Other Deferred Debits	10,162.12	46. Non-Operating Margin (Current Yr.)	183.02
23. TOTAL DEFERRED DEBITS	\$ 10,162.12	47. TOTAL MARGINS & OTHER EQUITIES	\$ 373,981.56
24. TOTAL ASSETS & OTHER DEBITS	\$ 20,864,688.11	48. TOTAL LIABILITIES & OTHER CREDITS	\$ 20,864,688.11

* Show investment in Government bonds in this space.

SCHEDULE B. ELECTRIC PLANT			
1. Elec. Plant Leased to Others	\$ -0-	DEPRECIATION RESERVES	
2. Elec. Plant Held for Fut. Use	-0-	15. Res. for Depr. - Steam Plant	\$ 727,748.00
3. Intangible Plant	16,355.00	16. Res. for Depr. - Hydro Plant	95,250.00
4. Production Plant - Steam	9,337,500.00	17. Res. for Depr. - Int. Comb. Plant	104,387.00
5. Production Plant - Hydro	2,340,000.00	18. Res. for Depr. - Trans. Plant	584,445.00
6. Production Plant - Int. Comb.	1,332,000.00	19. Res. for Depr. - Dist. Plant	-0-
7. Transmission Plant	6,103,500.00	20. Res. for Depr. - General Plant	52,160.00
8. Distribution Plant	-0-	21. TOTAL DEPR. RESERVES	\$ 1,563,990.00
9. General Plant	160,050.00	AMORTIZATION RESERVES	
10. Electric Plant Purchased	100,000.00	22. Res. for Amort. - Lim. Term El. Plt.	-0-
11. Electric Plant Sold	-0-	23. Res. for Amort. - El. Pl. Acq. Adj.	5,275.00
12. Donations in Aid of Const. (Cr.)	(5,000.00)	24. TOTAL AMORTIZATION RESERVES	\$ 5,275.00
13. Unclassified Plant in Service	348,000.00	25. Res. for Dep. & Amor. Other Prop.	-0-
14. TOTAL ELECTRIC PLANT	\$ 19,732,405.00	26. TOTAL RES. DEPR. & AMORTIZATION	\$ 1,569,265.00

SCHEDULE C. STATEMENT OF REVENUE AND EXPENSE					
ITEM	YEAR TO DATE COMPARISON		MILLS PER NET KWH	THIS MONTH	MILLS PER NET KWH
	BUDGET	THIS YEAR			
1. Operating Revenues and Patrons' Capital	\$ 1,120,000.00	\$ 1,122,133.61	9.62	\$ 290,213.04	9.66
2. Operating Expenses (Line 50, Schedule D.)	680,000.00	678,410.53	5.81	171,382.24	5.71
3. Depreciation	153,700.00	153,534.60	1.32	38,408.65	1.28
4. Amort. of Intangibles, Adjustments, etc.	380.00	380.00	x x	95.00	x x
5. Taxes	55,000.00	56,584.22	.49	14,155.08	.47
6. TOTAL OPERATING REVENUE DEDUCTIONS	\$ 889,080.00	\$ 888,909.35	7.62	\$ 224,040.97	7.46
7. Operating Margin	230,920.00	233,224.26	2.00	66,172.07	2.20
8. Other Operating Income	-0-	-0-	x x	-0-	x x
9. GROSS OPERATING MARGIN	\$ 230,920.00	\$ 233,224.26	2.00	\$ 66,172.07	2.20
10. Interest on Long Term Debt	133,000.00	132,714.88	1.14	33,335.00	1.11
11. Interest Charged to Construction-Credit	(10,000.00)	(10,559.36)	.09	(2,796.12)	.09
12. Other Income Deductions	100.00	-0-	x x	-0-	x x
13. TOTAL INCOME DEDUCTIONS	\$ 123,100.00	\$ 122,155.52	1.05	\$ 30,538.88	1.02
14. Net Operating Margin	\$ 107,820.00	\$ 111,068.74	.95	\$ 35,633.19	1.18
15. Non-Operating Revenue	500.00	862.91	x x	125.15	x x
16. Non-Operating Revenue Deductions	400.00	679.81	x x	97.12	x x
17. Non-Operating Margin	\$ 100.00	\$ 183.02	x x	\$ 28.73	x x
18. NET MARGIN (14 + 17)	\$ 107,920.00	\$ 111,251.76	.95	\$ 35,661.92	1.18

MONTHLY OPERATING REPORT SUMMARY is to be filled out by the Cooperative and sent in Duplicate to REA, Power Division before the 15th of the following month.

MONTHLY OPERATING REPORT SUMMARY
OPERATING EXPENSE STATEMENT

BORROWER
DESIGNATION Washington, D. C. 1

MONTH OF April 30, 19 49

SCHEDULE D.		ELECTRIC OPERATING EXPENSE			
ITEM	YEAR TO DATE		MILLS PER NET KWH	THIS MONTH	MILLS PER NET KWH
	BUDGET *	THIS YEAR			
PRODUCTION EXPENSE					
Steam Production					
1. Operation - Super., Engr., Labor	\$ 30,000.00	\$ 31,685.60		\$ 8,226.75	
2. Fuel	430,000.00	427,235.60		105,125.94	
3. Water, Sup. & Exp.	3,000.00	3,312.00		822.00	
4. Total Oper.	463,000.00	462,233.20	4.72	114,174.69	4.70
5. Maintenance	20,000.00	19,914.00		3,536.69	
6. Miscellaneous	200.00	266.83		125.67	
7. TOTAL STEAM PROD. EXP.	\$ 483,200.00	\$ 482,414.03	4.93	\$ 117,837.05	4.85
NET KWH: THIS YEAR	97,892,000	THIS MONTH	24,275,000	x x	x x
Hydraulic Production					
8. Operation - Super., Engr., Labor	\$ 7,500.00	\$ 7,248.12		\$ 1,858.49	
9. Sup. & Expenses	600.00	622.79		261.74	
10. Total Oper.	8,100.00	7,870.91	.85	2,120.23	.65
11. Maintenance	1,000.00	943.00		248.31	
12. Miscellaneous	100.00	239.75		60.60	
13. TOTAL HYDRAULIC PROD. EXP.	\$ 9,200.00	\$ 9,053.66	.98	\$ 2,429.14	.75
NET KWH: THIS YEAR	9,228,000	THIS MONTH	3,260,000	x x	x x
Internal Combustion Production					
14. Operation - Super., Engr., Labor	\$ 13,000.00	\$ 13,386.61		\$ 3,601.15	
15. Fuel	47,000.00	46,737.47		11,330.42	
16. Lubricants	2,500.00	2,688.90		680.52	
17. Other Sup. & Exp.	1,000.00	1,445.23		303.25	
18. Total Oper.	63,500.00	64,258.21	7.71	15,915.34	8.13
19. Maintenance	12,000.00	11,415.95		3,007.51	
20. Miscellaneous	500.00	525.30		130.48	
21. TOTAL INT. COMB. PROD. EXP.	\$ 76,000.00	\$ 76,199.46	9.14	\$ 19,053.33	9.73
NET KWH: THIS YEAR	8,338,080	THIS MONTH	1,957,780	x x	x x
Other Production Expense					
22. Purchased Power	\$ 21,000.00	\$ 20,361.00		\$ 8,800.00	
23. Interchange Power-In	1,000.00	---		---	
24. Other Production Expenses		---		---	
25. TOTAL OTHER PRODUCTION EXP.	\$ 22,000.00	\$ 20,361.00	16.5	\$ 8,800.00	16.0
NET KWH: THIS YEAR	1,234,000	THIS MONTH	550,000	x x	x x
26. TOTAL - PRODUCTION EXP.	\$ 590,400.00	\$ 588,028.15	5.04	\$ 148,119.52	4.93
TOTAL NET KWH: THIS YEAR	116,692,080	THIS MONTH	30,062,780	x x	x x
TRANSMISSION EXPENSE					
27. Operation-Super, Engr., Load Desq	\$ 6,500.00	\$ 6,744.00		\$ 1,700.00	
28. Substations	6,500.00	6,497.00		1,680.00	
29. Lines	7,000.00	7,060.00		1,805.00	
30. Total Oper.	\$ 20,000.00	\$ 20,301.00	.17	\$ 5,185.00	.17
31. Maintenance - Super. & Eng.	1,000.00	892.00		250.00	
32. Struct., Sta. Equip.	11,000.00	10,141.00		2,581.00	
33. Lines, Roads & Trails	8,000.00	8,171.00		2,130.00	
34. Total Maint.	\$ 20,000.00	\$ 19,204.00	.17	\$ 4,961.00	.17
35. Miscellaneous - Rents, etc.	200.00	178.00	x x	25.00	x x
36. TOTAL TRANSMISSION EXP.	\$ 40,200.00	\$ 39,683.00	.34	\$ 10,171.00	.34
DISTRIBUTION EXPENSE					
37. Operation	\$	\$		\$	
38. Maintenance					
39. Miscellaneous					
40. TOTAL DISTRIBUTION EXP.	\$ -0-	\$ -	---	\$ -	---
ADMINISTRATIVE AND GENERAL EXPENSE					
41. Consumer's Accounting & Collecting	\$ 500.00	\$ 503.86		\$ 116.92	
42. Gen. Office Salaries, Sup. & Exp.	23,000.00	22,963.91		6,057.19	
43. Special Services, Regulatory Exp.	500.00	500.00		125.00	
44. Insurance, Injuries & Damages	16,000.00	15,926.73		4,394.72	
45. Director's Fees & Mileage	6,000.00	6,143.05		1,431.67	
46. Dues to Assoc. Organ., Donations	125.00	125.00		25.00	
47. Maint. of Gen. Property, Rents, etc.	2,000.00	2,430.07		542.17	
48. Miscellaneous General Expenses	1,275.00	1,606.78		399.05	
49. TOTAL ADM & GEN. EXPENSE	\$ 49,400.00	\$ 50,699.40	.43	\$ 13,091.72	.44
50. TOTAL OPERATING EXPENSE	\$ 680,000.00	\$ 678,410.53	5.81	\$ 171,382.24	5.71

*Use of this column optional.

DATE

MANAGER

Attach Copy of Purchased Power Bills

MONTHLY OPERATING REPORT SUMMARY
DISPOSITION OF ELECTRIC ENERGY GENERATED AND PURCHASED

(1) MEMBER OR CONSUMER (Use REA Designation)		(2) METERING PT. OR SUBSTATION	(3) SUBSTATION CAPACITY	(4) MAX. 15 MIN. DEMAND	(5) TIME OF MAX. DEMAND DAY HOUR	(6) DEMAND AT TIME OF SYSTEM PEAK	(7) KWH BILLED	(8) LOAD FACTOR	(9) AMOUNT BILLED	(10) MILLS PER KWH
1. Upper River Electric Cooperative		Parker	7,500	4,750	18 7:00P	4,600	1,154,600	33.7	13,988.70	12.12
2. Tri-County Cooperative		Wagler	5,000	4,790	24 6:30P	4,440	1,776,130	51.5	17,443.04	9.82
3. Powell Valley Electric Cooperative		Helmholz	5,000	3,000	27 5:30P	3,000	1,257,120	58.2	10,053.78	8.00
4. Leather Neck Electric Cooperative		Morris	1,500	1,250	30 8:00P	1,100	348,300	42.7	4,616.05	13.25
5. Tidewater Electric Cooperative		Marsh	10,000	8,270	18 7:30P	6,000	2,852,150	47.9	30,116.24	10.56
6. South Side Electric Cooperative		Barbara	2,500	2,300	21 5:00P	2,000	859,460	51.9	8,421.15	9.80
7. " " "		Walpole	2,500	1,900	29 6:00P	1,700	627,910	45.8	7,023.99	11.19
8. Prince William Electric Cooperative		Crawford	3,000	3,400	30 7:00P	2,900	1,539,790	62.9	11,982.03	7.78
9. Farm Home Electric Cooperative		Solvey	2,000	1,800	27 6:00P	1,800	482,110	37.2	6,009.08	12.46
10. Alger County Electric Cooperative		Finseth	10,000	8,100	16 8:00P	5,500	2,100,000	36.0	22,806.61	10.86
11. Kings County Electric Cooperative		Mc Gray	7,500	7,000	21 9:00P	5,800	1,950,800	38.7	22,251.07	11.41
12. Alger Rural Electric Cooperative		Straub	9,000	8,150	15 5:30P	7,300	2,000,900	33.5	22,779.25	11.38
13. Consumers Rural Electric Cooperative		Western	7,500	6,800	19 8:00P	6,750	2,173,820	44.4	23,075.67	10.62
14. Northern Electric Cooperative		Eastern	9,000	8,300	22 6:30P	5,422	2,062,360	34.5	23,414.82	11.35
15. Carlton County Electric Cooperative		Harold	3,000	2,600	27 7:00P	2,600	973,440	52.0	9,105.22	9.35
16. " " "		Oak	4,500	4,450	1 7:00P	4,300	1,835,890	57.3	15,055.39	8.20
17. Marlboro Rural Electric Cooperative		Guilford	7,500	6,900	9 5:30P	6,450	1,987,200	40.0	21,634.15	10.89
18. Caddy Creek Electric Cooperative		Tee	10,000	5,500	27 6:00P	5,500	1,968,120	49.7	20,436.80	10.38
19.										
20.										
21.										
22.										
23.										
24.										
25.										
26.										
27.										
28.										
29.										
30.										
NET INTERCHANGE - OUT Blue Water Irr. Dist.		Drop No. 1	--	--	--	--	-0-		Even exchange	-0-
TOTAL ENERGY SALES THIS MONTH			107,000	89,260	27 6:00P	77,162	27,950,100	50.3	\$ 290,213.04	10.38
LINE LOSSES							2,092,680			
TOTAL NET ENERGY REQUIREMENTS							30,042,780			
TOTAL ENERGY SALES THIS YEAR										
DIVERSITY FACTOR		1.16								
TOTAL ENERGY SALES THIS YEAR		108,523,560								
LINE LOSS, PER CENT							6.95%			

Total Col. 4
Total Col. 6

MONTHLY OPERATING REPORT SUMMARY
ENERGY GENERATED, PURCHASED, OR INTERCHANGE-IN

BORROWER DESIGNATION Washington, D. C. 1

MONTH OF April 30, 19 49

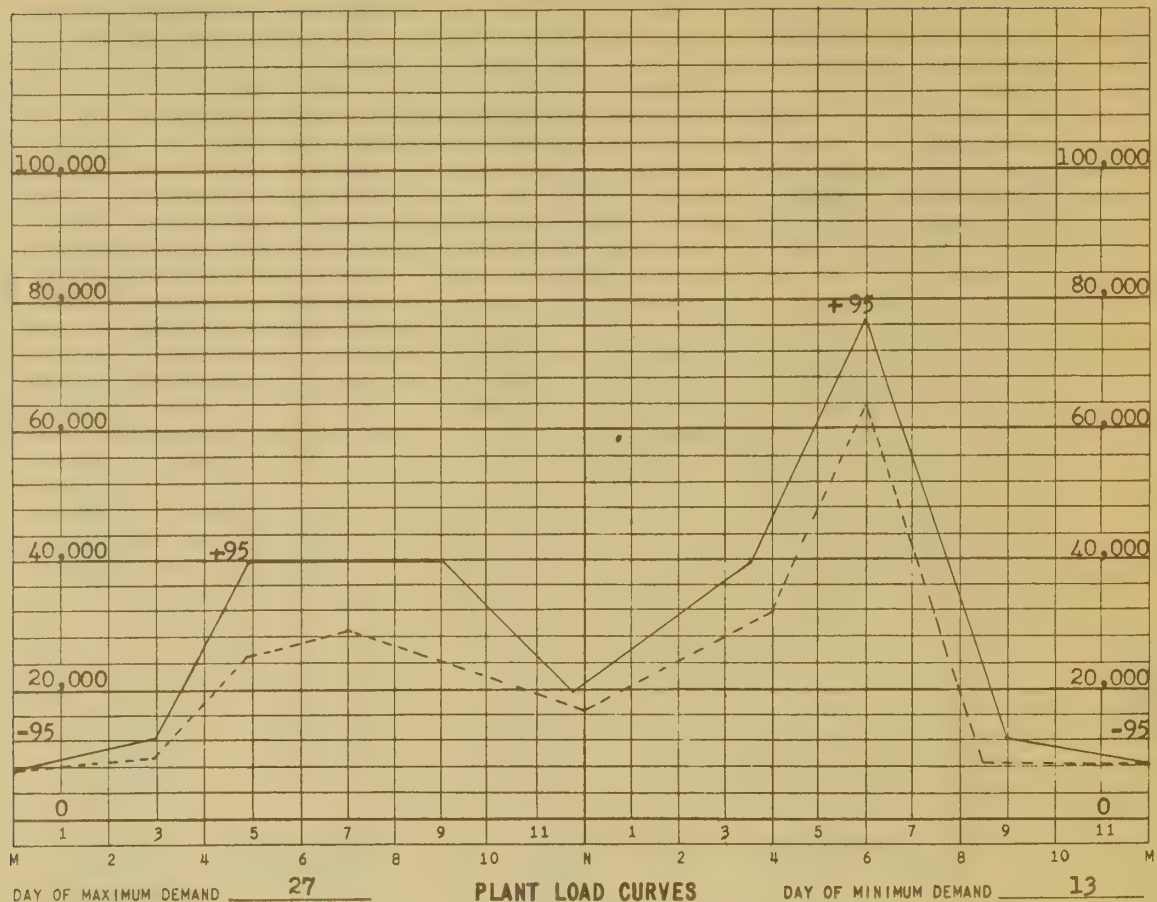
(1) PLANT OR UTILITY	(2)* TYPE OF PLANT	(3) METERING PT. OR SUBSTATION	(4) MAX. 15 MIN. DEMAND	(5) TIME OF MAX. DEMAND		(6) DEMAND AT TIME OF SYSTEM PEAK KW	THIS YEAR		THIS MONTH		(11) LOAD FACTOR %
				DAY	HOUR		(7) NET GENERATION, PURCHASED, OR INTERCHANGE-IN	(8) MILLS PER KWH	(9) NET GENERATION, PURCHASED, OR INTERCHANGE-IN	(10) MILLS KWH	
GENERATED IN OWN PLANTS:											
1. Mount Vernon	S	Plant	47,600	14	8:30P	45,000	97,892,000	6.66	24,275,000	6.62	74.5
2. Great Falls	H	"	5,400	8	6:00P	5,000	9,228,000	6.32	3,260,000	4.49	82.6
3. Potomac	D	"	2,725	15	6:00P	2,725	4,355,480	15.46	988,780	16.85	52.0
4. Fairfax	DF	"	2,087	25	7:15P	2,087	3,982,600	11.62	969,000	12.09	66.8
5.											
6.											
7.											
8.											
9.											
10.											
11.											
12.											
TOTAL GENERATED IN OWN PLANTS.											
			THIS MONTH			54,812	x x x	x x	29,492,780	6.90	75.0
			THIS YEAR			59,000	115,458,080	7.14	x x x	x x	x x
ENERGY PURCHASED:											
1. O. and O. Pr. Co.		Foggy Bottom	1,980	25	7:00P	1,850	1,234,000	16.5	550,000	16.00	38.6
2.											
3.											
4.											
5.											
TOTAL ENERGY PURCHASED,											
			THIS MONTH			1,850	x x x	x x	550,000	16.00	38.6
			THIS YEAR			2,200	1,234,000	16.5	x x x	x x	x x
NET ENERGY INTERCHANGE-IN,											
1. Blue Water Irr. Dist.		Drop No. 1.	22,500	20	5:00P	20,900	Even Exchange of kWh	Even Exchange of kWh	Even Exchange of kWh		
2.											
3.											
TOTAL NET ENERGY INTERCHANGE-IN.											
			THIS MONTH			20,500	x x x	x x	-0-	-0-	-
			THIS YEAR			18,300	-0-	-0-	x x x	x x	x x
TOTAL ENERGY DELIVERED TO TRANSMISSION SYSTEM											
			THIS MONTH			77,162	x x x	x x	30,042,780	7.07	54.1
			THIS YEAR			79,500	116,692,080	7.24	x x x	x x	x x

* Abbreviate type of plant as follows: S, steam; H, hydro; I, Diesel; DP, dual fuel; G, gas.

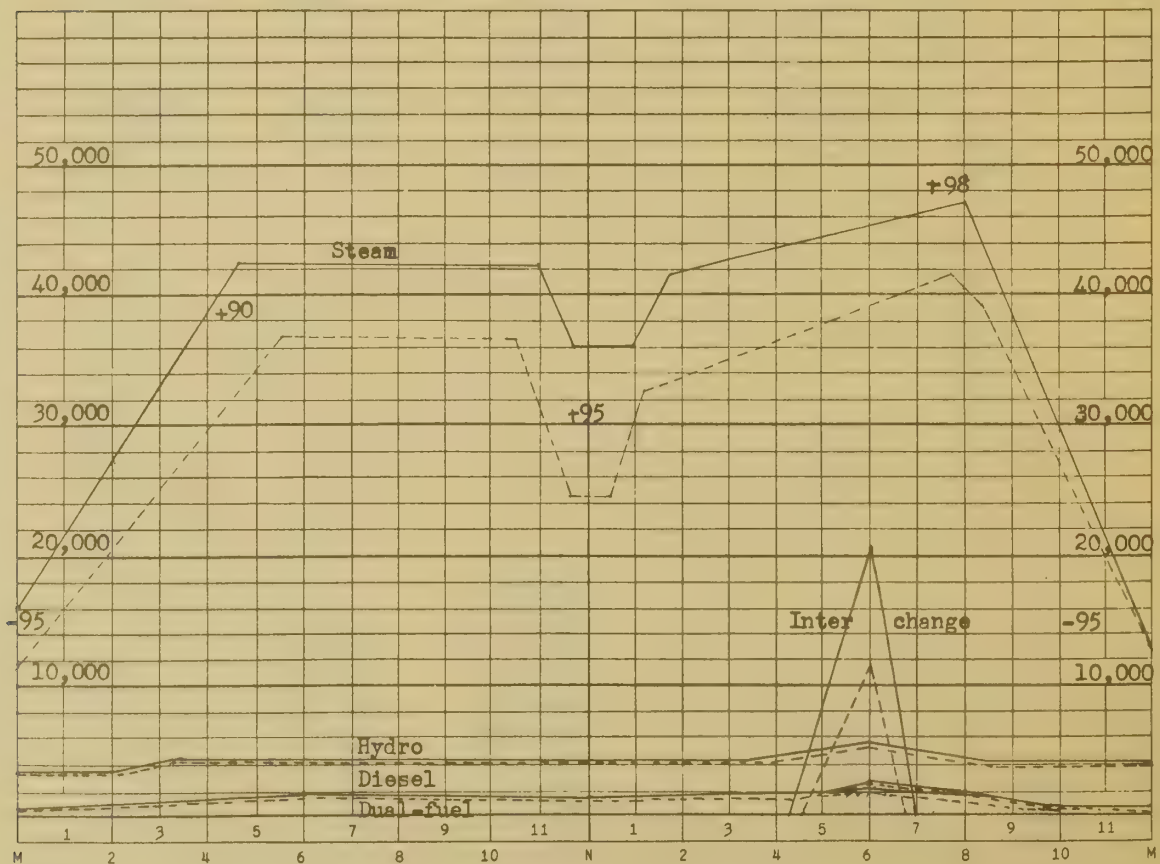
(See Other Side)

SYSTEM LOAD CURVES
FOR DAYS OF
MONTHLY MAXIMUM AND MINIMUM DEMANDS

PAGE 2 OF 2 PAGES



MONTHLY SYSTEM MAXIMUM AND MINIMUM DEMANDS



NOTE: Plot Maximum and Minimum Daily Load Curves using indicated Maximum Demands. Designate scale in kw.

PART III

Preparation of the Monthly Plant Operating Reports

Form ADM-39E1 Steam Plants,
Form ADM-39E2 Hydro Plants,
Form ADM-39E3 Internal Combustion Plants,
Form ADM-39E4 Transmission Plants.

Forms ADM-39E1, 39E2, 39E3 and 39E4 - Monthly Plant Operating Reports

GENERAL:

This group of forms serves to give pertinent information relating to the operation of generating and transmission plants. This information has a two-fold purpose:

- a. To furnish the borrower with data which will permit an evaluation of the performance of each electric plant giving the operating characteristics of the equipment, cost of operation and maintenance, and an overall picture of the plant efficiency and,
- b. To furnish REA with information of plant performance for technical analysis, study and comparison for the benefit and interest of all borrowers.

Power Type Borrowers having generation or transmission facilities are to prepare the forms, applicable to their systems, monthly. A separate plant operating report is to be prepared for each plant.

Selected Distribution Borrowers having generation facilities are to submit the plant operating reports applicable to their system (Form ADM-39E4 shall not be submitted) and the energy disposition and generation reports to the Power Division monthly, in addition to any other regular reports submitted to the Management Division.

When generating plants are used as standby power sources, or are not operating, a report form for each plant shall still be prepared and submitted. When a generating plant is used as standby capacity, certain costs associated with it continue, such as interest, depreciation, amortization, taxes, insurance, nominal maintenance, cleaning, inspection, etc. The report form will provide a convenient monthly record of these costs and any technical operation data which may be available. It will

thus serve to emphasize and bring to your attention the continuing costs associated with generating plant ownership.

Definitions of terms. The principal terms used in the various individual plant forms are computed or defined as shown below.

1. Load Factor

Load factor is defined as the ratio of the average load, over a designated period, to the peak load occurring in that period. Divide gross kwh generated by the actual hours in the month to obtain the average load.

$$\text{Load Factor} = \frac{\text{Gross kwh generated}}{\text{Hrs. in month} * \text{x maximum demand in kw}}$$

EXAMPLE: L.F. = $\frac{1,019,280}{720 \times 2,725} = .52 \text{ or } 52.0\%$
(See Form ADM-39E3)

2. Plant Factor

Plant factor is defined as the ratio of the average load on the plant for the period of time considered to the aggregate rating of all the generating equipment installed in the plant. For this factor use gross kwh generated.

$$\text{Plant Factor} = \frac{\text{Gross kwh generated}}{\text{Hrs. in month} * \text{x installed capacity in kw}}$$

EXAMPLE: P.F. = $\frac{1,019,280}{720 \times 3,200} = .442 \text{ or } 44.2\%$
(See Form ADM-39E3)

3. Running Plant Capacity Factor

This factor is defined as the ratio of the actual energy output to the energy output that would have resulted if

* Use actual hours in month being reported as:

30 - day month = 720 hours

31 - day month = 744 hours

each unit had been operated at its full rated capacity throughout its actual hours of operation.

$$\text{R.P.C.F.} = \frac{\text{Gross kwh generated}}{\text{kw rating}_1 \times \text{Hrs. Oper.} + \text{kw rating}_2 \times \text{Hrs. Oper.} + \text{etc.}}$$

EXAMPLE:

(See Form ADM-39E3)

$$\begin{aligned} \text{R.P.C.F.} &= \frac{1,019,280}{400 \times 396 + 400 \times 342 + 400 \times 301 + 1000 \times 476 + 1000 \times 525} \\ &= .7195 \text{ or } 71.95\% \end{aligned}$$

4. Maximum Demand

If the 15 minute integrated maximum demand is obtained from a watthour demand meter or a recording type demand meter enter it in the space marked "15 Minute Maximum Demand." If the maximum demand is obtained from an instrument which records or indicates the instantaneous demand, enter it under "Indicated" and leave the space for the 15 minute demand blank.

5. Station Service

Station service includes the energy used for the auxiliaries, lighting, and heating of the generating plant. Energy used in heating and lighting general offices, meeting rooms, etc. shall not be included as station service.

6. Operation and Maintenance

These items should be classified in accordance with the instructions outlined in the REA uniform system of accounts. The following tabulation has been prepared to assist in the classification of expenses between operation and maintenance.

This tabulation is not intended to be all inclusive but is merely given as a guide to illustrate the typical items of the two classifications.

A. Operation - Generating Plants.

All labor, material, overhead and other expenses incurred in operation work, such as:

1. Associated cost of plant supervision and engineering,
2. Operation of prime movers, generators, auxiliaries, switchboards and other items in connection therewith (this includes replacement of filter cartridges, light bulbs, dynamo brushes, steam and air hose, manhole gaskets, hand tools, etc.),
3. Handling of fuels from storage to station equipment,
4. Ash handling,
5. Blowing flues,
6. Cleaning boilers,
7. Oiling and wiping equipment,
8. Reclaiming of lube oil, including handling, filtering and necessary supplies,
9. Cost of water purchased from others, periodic payments for licenses, permits and riparian rights,
10. Water treating, testing, including filters, boiler compounds chemicals, pumping supplies,
11. Routine equipment inspection,
12. Routine testing meters, gauges and other instruments, including minor replacements, such as gauge glasses, recording pens, etc.,
13. Cleaning reservoirs, gates, screens, trash racks, etc.,
14. Watch and patrol service,
15. Janitor services and supplies,
16. Yard and building cleaning and supplies,
17. Insect control,
18. Log sheets, charts, preparation of records, drawings, and office supplies for station use,
19. Training employees for operation work.

B. Maintenance - Generating Plants.

All labor, material, overheads and other expenses incurred in maintenance work, such as:

1. Associated cost of plant supervision and engineering,
2. Inspecting, testing and reporting on the condition of electric plant in service, specifically to determine the need of repairs, minor replacements, rearrangements and changes,

3. Restoring the condition of property damaged by wear, tear and decay, action of the elements, accidents or other casualties. The cost of maintenance does not include the cost of replacing items of property designated as "units of property",
4. Inspecting and testing after repairs have been made,
5. Repairing parts for re-use,
6. Routine work to prevent trouble, including cleaning and adjusting equipment,
7. Repainting of structures and equipment,
8. Rearranging and changing the location of property not retired,
9. Cutting and replacement of walls, pavement and sidewalks in connection with repairs,
10. Testing for, locating and clearing trouble,
11. Training employees for maintenance work.

C. Operation - Transmission.

All labor, material, overheads and other expenses incurred in operation work, such as:

1. Associated cost of transmission supervision and engineering,
2. Load dispatching,
3. Operation of transmission substations and switching stations, including communication services, lubricants and waste, meter supplies, station records, tools (renewing transformer oil is a maintenance expense),
4. Periodic routine testing and inspection of equipment, lines and grounds,
5. Trimming trees and clearing right-of-way,
6. Preparation of maps, records and voltage surveys,
7. Resetting, changing, testing and removing power transformers and metering equipment,
8. Investigating and adjusting service complaints,
9. Routine patrolling.

D. Maintenance - Transmission.

All labor, material, overheads and other expenses incurred in maintenance work, such as:

1. Associated cost of transmission supervision and engineering,
2. Inspecting, testing and reporting on the condition of lines and station equipment, specifically to determine the need for repairs, minor replacements, rearrangement and changes,
3. Restoring the condition of property damaged by wear, tear and decay, action of the elements, accidents or

- other casualties (The cost of maintenance does not include the cost of replacing items of property designated as "units of property".),
4. Inspecting and testing after repairs have been made,
 5. Routine work to prevent trouble such as pulling up slack, tightening guys, raking guy stubs, straightening poles and crossarms and cleaning and adjusting equipment,
 6. Repainting of structures and equipment,
 7. Reconditioning materials for re-use,
 8. Rearranging and changing the location of property not retired,
 9. Cutting and replacing pavement, pavement base and sidewalks in connection with repairs,
 10. Testing for, locating and clearing trouble,
 11. Renewing oil in transformers, oil circuit breakers, etc., refusing transformers,
 12. Training employees for maintenance work.

Monthly Plant Maintenance Reports.

These reports give the breakdown of maintenance on a major unit basis.

Generating Plants

The reports for generating plants give the man hour, material and labor breakdown of each maintenance expense account. The expense for generating equipment, boilers, etc. is divided to show this breakdown for each unit.

Material, labor, and other charges covering maintenance of these items should show the units involved. If the charge is not readily assignable to a specific unit, such as maintenance of coal handling equipment, etc., it should be classified as general and reported accordingly.

Space is provided to describe maintenance work done during the month and to list the materials used therefor. This includes incompletes as well as completed jobs. All important work done and all major items of

material used should be reported in this space. To facilitate the preparation of these reports it is suggested that subsidiary records of the maintenance accounts involved be installed for each generating unit, boiler, etc.

Transmission Plant

This report gives the breakdown of transmission maintenance expense between lines and substations and a further breakdown by voltage classes. All maintenance charges for transmission should indicate whether they are for lines or substations and the voltage of the equipment involved. If lines are constructed for one voltage and operated at a different voltage they should be classified and reported under the design voltage. A footnote to this effect should be made on the report giving the miles of line and the voltage at which it is being operated. Subsidiary records of these maintenance accounts should be maintained by voltage classes to facilitate the preparation of this report. Any questions regarding the installation of subsidiary records should be addressed to the Power Management Section.

7. Expense Items

Expenses incurred in the operation of electric plants should be reported in accordance with the classification of the REA uniform system of accounts. The account numbers for the respective expenses are given in the report forms. The

monthly and year to date balances of the various accounts should be shown in the appropriate columns.

8. Overheads

This item includes expenses which are to be prorated to individual plants. These expenses represent costs which have not been charged directly to the operation of a particular plant. They represent, however, costs which should be considered when determining the total cost of generation or transmission of electric energy. The basis of pro-rating or calculating will be given for each item separately.

8a. Depreciation

A. Generating Plants

The amounts charged against revenue as depreciation of generating plants are indicated by the balances in accounts 503.1, 503.2 and 503.3. If these balances represent depreciation charges on more than one plant they should be divided on the basis of the charges established by the depreciation register and reported on the form for each individual plant.

B. Transmission Plant

The amount charged against revenue as depreciation of transmission plant is indicated by the balance in account 503.4. This balance is to be divided between lines and substations on the basis of investment values.

C. General Plant

Depreciation charges under account 503.6 for General Plant items should be added to the depreciation charges for the individual production or transmission plant when they are readily assignable. If the charges are not readily assignable, they should be added to the "Other Administrative and General Expense" items and pro-rated accordingly. (See Paragraph 8e.)

D. Amortization

Amortization charges under accounts 504, 505 and 506 should be applied to the depreciation charges for the particular generating plant or the transmission system involved. If these charges are made for items which can not be directly applied to any particular plant they should be added to the "Other Administrative and General Expenses" and pro-rated accordingly. (See Paragraph 8e.)

8b. Taxes

This item is composed of the balances of all tax expenses charged to accounts 507.1 through 507.7.

A. Property Taxes

The distribution of this tax between generating plants and transmission can usually be ascertained from the billings of the tax authority. If this is unavailable, or if other taxes are paid in lieu of property taxes, the total should be pro-rated according to the approximate

investment in generating, transmission and distribution facilities. The amount allocated to generation should be sub-divided by plants; the transmission amount should be divided between lines and substations. These sub-divisions should also be made on the basis of investment.

B. Social Security Taxes

These taxes are based on payroll and should be distributed accordingly between generation, transmission, and distribution. The amount allocated to generation should be sub-divided by plants; the transmission amount should be divided between lines and substations. These sub-divisions should also be made on the basis of payrolls.

C. Taxes: State Sales - Consumers

This tax pertains to sales of electric energy the amount of which is shown in account 507.5. It should be classified as a distribution expense by distribution type borrower and as a transmission expense by a power type borrower.

D. Taxes - other

This includes taxes not listed above, the amounts of which are shown in accounts 507.6 and 507.7. These taxes should be distributed to generation, transmission and distribution, as applicable. If the allocation of these taxes cannot be readily ascertained it is recommended that they be pro-rated on the basis of investment.

8c. Interest

This item provides for interest on long-term debt only. It represents the difference between accounts 530.1 and 536.

It is to be pro-rated to generation, transmission and distribution on the basis of investment. The amount thus allocated to generation should be sub-divided by plants; the transmission amount should be divided between lines and sub-stations. These sub-divisions should also be made on the basis of investment.

EXAMPLE:

(See Illustrative Example Schedule C)

Balance Account 530.1 (Line 10)	\$33,335.00
Balance Account 536 (Line 11)	<u>2,796.12</u>
Net interest expense (Line 13)	\$30,538.88

<u>Investments</u>	<u>% of Investment</u>	<u>Interest</u>
1. Intangibles (\$16,355)	* *	*
2. Generation-Steam-(Mt.Vernon)	\$9,332,500-47.7	\$14,567.58
3. Generation-Hydro-(Great Falls)	2,476,000-12.7	3,878.58
4. Generation-Int.Comb.-(Fairfax)	660,000- 3.4	1,038.36
5. Generation-Int.Comb.-(Potomac)	672,000- 3.4	1,038.36
6. Transmission-Lines	3,759,500-19.2	5,863.00
7. Transmission-Substations	2,656,000-13.6	4,153.00
8. General Plant (\$160,050)	* *	*
Total Investment	\$19,556,000 100%	\$30,538.88

8d. Insurance

This item shall include the balances of accounts 798 and 799.

These expenses should be pro-rated to generation, transmission and distribution as follows:

* Omit for pro-ration purposes.

A. Insurance (Account 798)

The breakdown of the balance in this account can usually be ascertained from the insurance register. If the register does not contain this information an inspection of the policies involved will give the proper distribution between generation, transmission and distribution plants. The amount allocated to generation should be subdivided by plants; the transmission amount should be divided between lines and substations.

B. Injuries and Damages (Account 799)

Generally the balance in this account represents insurance, premiums for which are based on the payroll. This expense should be pro-rated to generation, transmission and distribution on the same basis. The amount allocated to generation should be sub-divided between lines and substations. If other expenses are included in this account, which are not computed on a payroll basis, they should be allocated to the plants involved.

8e. Other Administrative and General Expense

This item includes the expenses in accounts 790 through 797, all the 800 accounts and any depreciation of General Plant (Account 503.6) or Amortization charges (Accounts 504, 505 and 506) which were not directly assignable to any particular plant. (See Paragraphs 8a, C and D.) The sum of these expenses should be pro-rated to generation, transmission and

distribution on the basis of direct labor. The amount allocated to generation should be sub-divided by plants; the transmission amount should be divided between lines and substations. This sub-division should also be made on the basis of direct labor.

9. Operating Inventory

The columns are to be filled out in accordance with the items listed in the forms, such as types of fuel on hand, fuels at the beginning and the end of the month, amounts of fuel purchased and consumed during the month. Dollar values and quantities should be shown. Do the same for lube oil.

Materials and supplies (operation and maintenance) should also be listed in a separate column in accordance with the above instructions. Dollar values only should be shown.

10. Labor

Indicate in the corresponding lines the number of permanent and part-time employees. Both supervisory and station labor should be included. The man-hours used for operation or maintenance should be obtained from the pay roll records. Operating and maintenance personnel on the generating plant pay roll when engaged in work in connection with transmission or distribution expense accounts, and the man-hours used therefore should not be included as generation labor.

11. Plant Outages (generating plant)

A plant outage is considered as such if the generating plant is unable to meet the demand of the system due to plant equipment failure for various reasons.

Do not report, as a plant outage, the opening of a feeder breaker or breakers outside the plant which may cause a partial or total system outage.

SPECIAL INSTRUCTIONS:

Form ADM-39E1 - Steam-Electric Generating Plant.

A separate form shall be prepared for each individual steam electric generating plant owned or operated by the borrower.

Sl. Boilers and Turbines

Each unit shall be listed separately in the space provided for it indicating its size, or manufacturer's rating, in the corresponding line and column. Columns "Hours Operated", "Times Started", "Fuel Consumption", "Steam Generated", "Gross Generation in KWH", "Steam Used", and "Fuels Per Gross KWH" should be filled out with amounts indicating monthly totals or averages, as the case may be. Spaces have been provided for the columns to be totaled.

When starting coal burning boilers with fuel other than coal, the amount of starting fuel used should be shown separately below the boiler units in the "Fuel Consumption" column, as starting fuel. This amount of fuel should not be included when calculating "Pounds of steam per unit of fuel" or the efficiencies of boilers. The purpose of

listing the "starting fuel" separately is to show total cost of fuel consumption and for inventory reconciliation.

A unit of fuel as used in this form is defined as one pound of coal, one gallon fuel oil, or one cubic foot of gas, as the case may be.

S2. Boiler Efficiency

The efficiency of a steam generating unit is:

$$\text{Eff.} = \frac{\text{Output}}{\text{Input}} \quad \text{or} \quad \frac{\text{Useful Heat in Btu}}{\text{Total Btu of fuel burned}}$$

This is equal to the ratio of the monthly output of the boiler in Btu (derived from the output of steam in pounds) to the total Btu content of the fuel consumed during the same period.

The efficiency obtainable from a steam generating unit depends upon the kind of fuel burned, the method of firing the fuel, the load on the unit, the care exercised in its operation, the characteristics of the boiler and furnace, etc. Steam tables are to be used to determine the useful heat in Btu of the super-heated steam produced. An allowance must be made for the Btu heat of the feedwater entering the boiler. The difference between these values will be the useful heat in Btu. This useful heat in Btu will then be based on the average monthly boiler superheat temperature, the average monthly operating pressure and the average monthly temperature of the feedwater supply. For the Btu input use the total amount of fuel consumed by the boilers during the month and the average

monthly Btu value per unit of fuel. Omit the heating value of the starting fuel, if different from primary fuel.

EXAMPLE: (See Steam-Electric Generating Form)

Temperature of superheated steam.	800° F.
Absolute pressure.	900 psia.
Btu per pound of superheated steam.	1,393.9
Feedwater at 360° F., Btu per pound due to compressing boiler feedwater to 900 psia from saturation pressure 67.013 psia.	332.18 + 2 Btu Approx.
Average Btu per pound of coal.	11,450 Btu.

Boiler Efficiencies:

$$\text{Boiler \#1} - \frac{92,155,000 \times (1,393.9 - 334.18)}{10,044,000 \times 11,450} = 84.9\%$$

$$\text{Boiler \#2} - \frac{86,220,000 \times (1,393.9 - 334.18)}{9,476,000 \times 11,450} = 84.2\%$$

$$\text{Boiler \#3} - \frac{67,976,000 \times (1,393.9 - 334.18)}{7,429,000 \times 11,450} = 84.7\%$$

S3. Overall Plant Thermal Efficiency - Net

Use 3413 Btu per kwh as the theoretical value of electric energy output, and the actual Btu required per net kwh generation, as input. The ratio of input to output will determine the overall plant thermal efficiency.

Form ADM-39E2 - Hydro-Electric Generating Plant.

A separate form shall be prepared for each individual hydro-electric generating plant owned or operated by the borrower.

H1. Unit Number

Each unit shall be listed in the space provided for it indicating its size or rating in the corresponding line and columns. Columns for hours operated, etc., shall be completely filled out with the amounts for monthly totals.

H2. Gauge Readings

In this report, where entries of hydraulic data represents averages, it is understood that such averages are averages of the log readings, which have been taken at hourly, or other regular intervals, during the month.

H3. Head in Feet

The monthly average head in feet shall be obtained by taking the average of the differences in the levels in feet of the intake and tailrace elevations. The maximum and minimum heads should also be recorded as supplementary information in the proper spaces. These recordings will reflect drought or flood conditions.

H4. CFS or Acre Feet Utilized

The discharge through the wheels in cfs shall be taken from the performance curves of the wheels for the average gate opening existing during the time the unit is in operation. This average value in cfs then can be converted to acre feet, when necessary, by using the following formula:

$$\text{Average of 1cfs for 1 day} = 2 \text{ acre feet per day.}$$

H5. Unit and Overall Plant Efficiencies

The efficiency for each unit of the plant is computed by using the following formula:

$$\text{Eff.} = 11.8 \frac{\text{Gross kwh generated}}{\text{Avg. operating head} \times \text{avg. cfs discharge} \times \text{hrs. of oper.}}$$

The overall efficiency is the efficiency of the entire plant and takes into account all hydraulic losses from the

regulating reservoir to the tailrace and all electrical losses to the plant bus, and shall be figured by the same formula using the total cfs discharge of all turbines and total net kwh generated.

H6. Water Spilled

The amount of water spilled during times of high runoff should be determined with the assistance of tables or curves, furnished by the design engineer of the plant in acre feet and converted to cfs, or in cfs direct. The equivalent kwh of the water spilled during the month shall then be calculated as follows:

$$\text{Equiv.kwh} = \frac{\text{avg.cfs spilled} \times \text{hrs.spilled} \times \text{avg.head} \times \text{Eff.}^*}{11.8}$$

H7. Vacuum in Inches

If vacuum gauges are installed at or near outlet side of the turbine casings, enter the readings under "Vacuum" in the table for "Hydraulix Data".

H8. Turbine P.S.I.

Enter the average of the readings taken in pounds per square inch at or near the inlet to the turbines. The approximate Effective Head may be checked by multiplying the foregoing figure by 2.31. (Head in feet = 2.31 x Pressure in #per square inch).

Form ADM-39E3 - Internal Combustion-Electric Generating Plant.

A separate form shall be prepared for each individual internal

* at full gate.

combustion electric generating plant owned or operated by the borrower.

IC1. Engines and Generators

Each unit should be listed separately in the space provided for it, indicating its size, or manufacturer's rating, in the corresponding line and column. Columns headed "Hours Operated", "Gross Generation", "Fuel Consumption" and "Lube Oil" should be completely filled out, with the amounts indicating monthly totals or averages. Spaces have been provided for the necessary column totals or averages calculated from these totals.

IC2. Fuel Consumption

It is important that the average Btu per unit of fuel be recorded in the space provided for it on the operating report form. This is particularly so in dual fuel plants where the total Btu per kwh for both fuels will give a measure of performance of the generating equipment in terms of fuel consumption. On a dual fuel plant report, the columns "KWH per Gal" and "CF per KWH" should be left blank. The total Btu per kwh for the entire plant however should be obtained by calculating the average Btu per kwh for both fuels as shown below.

EXAMPLE: (See Form ADM-39E3 for plant using dual fuel.)

Operating simultaneously on fuel oil and natural gas.

Gross Generation = 1,004,600 kwh

Fuel Oil consumed = 8,807 gal.

Gas consumed = 13,582,000 c.f.

Btu per gal. of oil = 149,684

Btu per c.f. of gas = 977

Avg.Btu per kwh
supplied by fuel oil = $\frac{8,807 \times 149,684}{1,004,600} = 1,312$ Btu per kwh
by oil

Avg.Btu per kwh
supplied by gas = $\frac{13,582,000 \times 977}{1,004,600} = 13,209$ Btu per
kwh by gas

Total Btu per kwh for
combined oil and gas = $1,312 + 13,209 = 14,512$ Btu per kwh
by oil and
gas

In Internal Combustion plants, containing either natural gas engines or Diesel engines as well as dual fuel engines, the "KWH per GAL" or "CF per KWH" for each unit should be calculated and recorded in the corresponding column depending upon whether the unit operates on fuel oil or on natural gas. With dual fuel engines the dual fuel units of the mixed plant are to be treated as outlined earlier in these instructions.

EXAMPLE:

Assume a plant that contains five (5) natural gas engines and two (2) dual fuel engines.

Gas Engines Only

<u>Unit</u>	<u>CF Gas Consumed</u>	<u>KWH Generated</u>	<u>CF per KWH</u>
1	460,000	36,100	12.74
2	990,000	75,000	13.20
3	336,000	26,900	12.49
4	346,000	27,000	12.81
5	770,000	62,300	12.36

Units 6 and 7 - Dual Fuel - Use same method as previously described.

IC3. Rated hp-hrs. per gal. Lube Oil

To obtain this figure, take the sum of the rated hp-hrs. of each unit and divide by the total number of gallons of lube oil consumed by all units.

IC4. Mixed Type Plants

Plants containing units of entirely different types, such as hydro and internal combustion, or internal combustion and steam, or any other similar combination, will require a separate form for each type of unit. In such plants, the calculation of station service, percentage-wise, must be based on the sum of the gross generation of all units.

EXAMPLE:

Assume a plant that contains 600 kw of internal combustion capacity and 400 kw of hydro capacity. All units are connected to a common bus.

Gross generation from Internal Combustion units	- 155,000 kwh
Gross generation from Hydro units	- 120,000 kwh
Station Service (kwh/by auxiliaries of all units plus heat and light for plant).	- 6,500 kwh
Total Generation	- 275,000 kwh
Station Service	- 6,500 kwh
Total Net Generation	- 268,500 kwh
Station Serv.% of Gross $\frac{6,500}{275,000} = .024$ or 2.4%	

The total gross generation shall be calculated and recorded on any one of the necessary report forms. It is necessary, however, to record the gross generation for each type of unit on its appropriate form. The load, plant, and running plant capacity factors shall be calculated from the total gross generation of the plant as previously described.

Each report form must be treated as a separate plant, if there is a separate bus system and separate metering for each type of generating plant.

Form ADM-39E⁴ - Transmission Plant.

One form shall be prepared for the entire "Transmission System" of the borrower. All expenses incurred during the month in the operation and maintenance of the transmission lines and substations shall be entered, and the columns of the form filled out with the amounts indicating monthly averages and totals.

The "Maintenance" tabulation has columns indicating man-hours of labor. These shall also be filled out accounting separately for each transmission voltage of the lines and substations.

T1. Vehicles

In the column "Cost of Operation" enter the cost of operation and maintenance of the vehicles, such as gas, oil, repairs (material and labor) and other minor expenses. Do not include the cost of labor to operate the truck, such as wages of the truck driver, unless his time is used in the repair of the vehicle.

Wages and man-hours of truck drivers should be accounted

for in the expenses of the particular jobs they are performing, such as inspection of transmission lines, hauling materials from station to warehouse, repairs of the trucks, etc.

T2. Transmission Line Outages

Under this heading in the column marked "KWH-LOST," for each interruption to service, enter the figure determined as follows:

$$\text{KWH-LOST} = \text{KW loading of interrupted section of system} \times \text{hrs. of interruption.}$$

The kw loading of the interrupted section of the system can be determined from the recording demand meters at the substations involved. When the interruption is of a considerable duration, estimate the variation of the demand of the service interrupted from the demand curves for the same day for the previous week. The duration of the service interruption should be expressed in hours and tenths of an hour, (as 1.1 hours = 1 hour and 6 minutes). The "KWH-LOST" when multiplied by the average selling price of energy for the cooperative will give a direct indication of the approximate loss in revenue resulting from the interruption and will show how important it is for the cooperative to maintain continuous electric service.

T3. Circuit Breaker Operation

Here, it is desired to record the operation of transmission plant circuit breakers due to trouble on any part of the

electric power system. If, for instance, a circuit breaker should trip due to a defective relay or an improper overload or voltage setting this circuit breaker operation should be listed and the reason for it given in the proper column.

Do not include in this table the opening or closing of a circuit breaker for load dispatching, routine maintenance, or any other reason which is considered normal in the operation of an electric plant.

MONTHLY PLANT OPERATING REPORT
STEAM-ELECTRIC GENERATING PLANT

PAGE 1 OF 3 PAGES

BORROWER
DESIGNATION Washington, D. C. 1

PLANT Mount Vernon

MONTH
ENDING April 30, 19 49

BOILERS											
NO.	SIZE 1000 LBS. STEAM/HR.	HOURS OPERATED			TIMES START- ED	FUEL CONSUMPTION			STEAM GENERATED		BOILER EFF.-%
		THIS YEAR	THIS MONTH	SINCE MAJOR OVERHAUL		COAL 1000 LBS.	OIL 1000 GAL.	GAS 1000 M.C.F.	TOTAL 1000 LBS.	LBS. PER UNIT FUEL	
1	190	2491	650	12,918	13	10,044	1,085		92,155	9.17	84.9
2	190	2587	624	11,892	17	9,476	1,424		86,220	9.10	84.2
3	120	2604	660	10,945	18	7,429	1,511		67,975	9.15	84.7
4											
5											
TOTAL	500	x x x x x x x				26,949	4,020		246,350	9.14	xxx

TURBINES										FACTORS - %	
NO.	SIZE KW	HOURS OPERATED			GROSS GENERATION 1000 KWH		STEAM USED		FUEL PER GROSS KWH	Load	Plant
		THIS YEAR	THIS MONTH	SINCE MAJOR OVERHAUL	THIS YEAR	THIS MONTH	TOTAL 1000 LBS.	LBS. PER KWH			
1	15000	2528	640	13,210	36,779	9,452	92,155	9.75	1.063	74.5	
2	15000	2597	616	10,980	37,893	9,014	86,220	9.57	1.051	85.5	
3	11500	2611	654	9,750	28,649	7,075	67,975	9.61	1.050	96.8	
4											
5											
TOTAL	41500	x x x x x x x			103,321	25,541	246,350	9.65	1.055		

OVERALL PLANT THERMAL EFF.				STATION SERVICE, 1000 KWH				STATION SERVICE, % OF GROSS				AVERAGE BTU PER LB. COAL			
Net 26.9 %				5,429				5.3				11,450			
				1,266				5.0							
				97,892											
				24,275											
				5.3											
				Avg. Boiler Pressure 900 Psia.				Avg. Boiler Feed Water Temp. 360 °F.				Average Btu per C.F. Gas			
				Steam Temp. 800 °F.								Average Btu per Gal. Fuel Oil			
												Btu per Gross KWH 12,080			
												Btu per Net KWH 12,710			

COST COMPUTATION OF NET ENERGY GENERATED						
ITEM NO.	EXPENSE ITEMS	REA ACCOUNT NUMBER	THIS YEAR		THIS MONTH	
			TOTAL DOLLARS	MILLS PER NET KWH	TOTAL DOLLARS	MILLS PER NET KWH
1	Operation, Supervision and Engineering	701	2,960.00	x x x	760.00	x x x
2	Station Labor	702	28,725.60	.29	7,466.75	.31
3	Fuel, Coal	703.1	427,235.60	4.36	105,125.94	4.33
4	Fuel, Oil	703.2				
5	Fuel, Gas	703.3				
6	Water	704	2,060.00	x x x	510.00	x x x
6a	Other Operating Supplies and Expenses	705	1,252.00	x x x	312.00	x x x
7	x x x x x x		x x x x x x	x x x x x x	x x x x x x	x x x x x x
8	Maintenance, Supervision and Engineering	706	1,092.00	x x x	332.00	x x x
9	Maint., Structures and Imp. Labor	707	890.00	x x x	266.45	x x x
	" " " " Material	"	210.00	x x x	56.90	x x x
9a	Maintenance, Boilers Labor	708	7,616.00	x x x	1,448.60	x x x
	" " " " Material	"	3,390.00	x x x	425.25	x x x
9b	Maint., Generating & Elec. Equip. Labor	709	4,290.00	x x x	855.85	x x x
	" " " " " Material	"	2,426.00	x x x	151.64	x x x
10	Sub-Total, Items 1 to 9b		482,147.20	4.93	117,711.38	4.85
11	Rents	710	--	x x x	--	x x x
12	Other Miscellaneous Expenses	711 to 714	266.83	x x x	125.67	x x x
13	TOTAL PRODUCTION EXP. Items 10 to 12		482,414.03	4.93	117,837.05	4.85
	OVERHEAD COSTS (PRORATED)		x x x x x x	x x x x x x	x x x x x x	x x x x x x
14	Depreciation	503.1	69,309.48	x x x	17,327.37	x x x
15	Taxes	507	20,872.28	x x x	5,218.07	x x x
16	Interest	530	58,270.32	x x x	14,567.58	x x x
17	Insurance	798, 799	7,866.39	x x x	2,149.57	x x x
18	Other Administrative and General		13,697.00	x x x	3,515.72	x x x
19	TOTAL OVERHEAD COSTS, Items 14 to 18		170,015.47	1.74	42,778.31	1.76
20	TOTAL PRODUCTION COST, Item 13 + 19		652,429.50	6.66	160,615.36	6.62

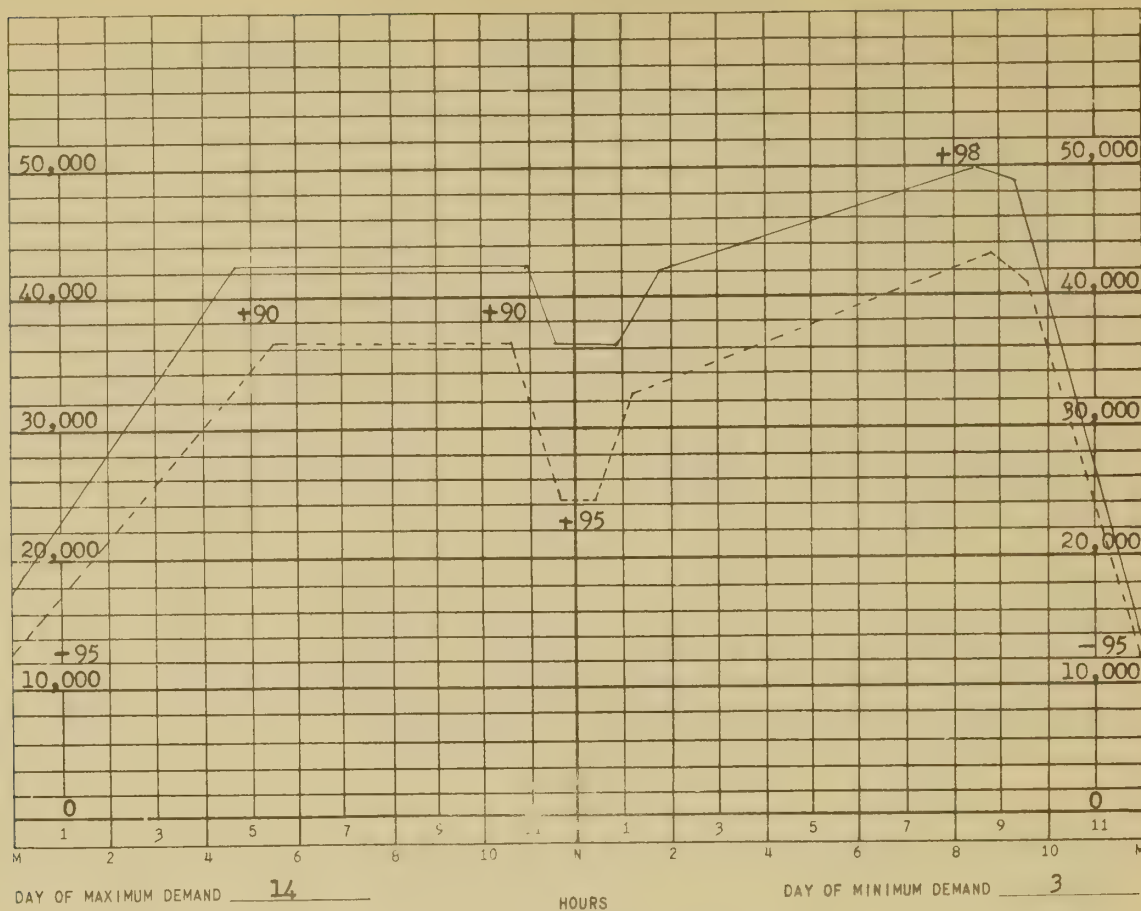
OPERATING INVENTORY		COAL		OIL		MAT. & SUP.	
	TONS	\$/TON	TOTAL \$	GALLONS	\$/GAL.	TOTAL \$	DOLLARS
On Hand, First of Month	67,692.75	7.7312	523,342.56	6889	.1189	819.10	8563.75
Purchased During Month	3,741.70	6.965	26,062.04	3000	.1189	356.70	850.00
Used During Month	13,474.50	7.691	103,640.07	4020	.1189	477.96	1097.43
On Hand, End of Month	57,959.95	7.691	445,764.53	5869	.1189	697.84	8316.32

LABOR				PLANT OUTAGES	
				NO.	DURATION
No. Full Time Employees 34				7	7 min.
No. Part Time Employees 3					
Man-Hours - Operation	REGULAR TIME	OVERTIME	TOTAL		
Man-Hours - Maintenance	4520	296	4816		
Man-Hours - TOTAL	1210	170	1380		
	5730	466	6196		

(See Other Side)

PLANT LOAD CURVE

PAGE 2 OF 3 PAGES



NOTE: Plot Maximum and Minimum Daily Load Curves with date of each, using Indicated Maximum Demand. Label each curve "—+" or "—-" at high and low points. (+ signifies leading P. F., - signifies lagging P. F.) Designate scale in kw.

Remarks:

DATE _____ SIGNED _____ TITLE _____

Both Operating and Maintenance Reports are to be filled out by the Cooperative and sent in *Duplicate* to the REA, Power Division before the 15th of the following month.

MONTHLY PLANT MAINTENANCE REPORT

STEAM-ELECTRIC GENERATING PLANT

PAGE 3 OF 3 PAGES

BORROWER
DESIGNATION Washington, D. C. 1PLANT Mount VernonMONTH
ENDING April 30, 19 49

CLASSIFI- CATION OF EQUIPMENT AND UNITS	REA ACC'T NO.	HOURS OUT FOR MAINTENANCE				MAINTENANCE					
		ROUTINE		SPECIAL *		LABOR MAN HOURS		MATERIAL DOLLARS		LABOR & MATERIAL TOTAL DOLLARS	
		THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH
Superv. & Eng.	706	x x	x x	x x	x x	437	135	x x x	x x x	1092.00	332.00
Struc. & Imp.	707	x x	x x	x x	x x		175	210.00	56.90	1100.00	323.35
Blr. Plt. Equip.		x x	x x	x x	x x						
Unit No. 1	708	42	125	--	--	1087	640	1416.35	408.60	3481.65	1821.20
2	"	216	--	42	--	1115	10	757.90	6.00	2877.20	25.00
3	"	178	--	--	--	1206	2	932.15	.25	3223.55	2.05
4	"										
5	"										
General	"	x x	x x	x x	x x	600	8	283.60	10.40	1423.60	25.60
Sub-Total	708	436	125	42		4008	660	3390.00	425.25	11006.00	1873.85
Generating & Elect. Equip.											
Unit No. 1	709	401	38	--	--	1310	113	1745.15	43.25	4235.85	280.55
2	"	126	21	--	--	458	77	323.65	--	1193.85	161.70
3	"	92	54	112	--	337	198	176.20	104.64	816.50	515.29
4	"										
5	"										
General	"	x x	x x	x x	x x	152	22	181.00	3.75	469.80	49.95
Sub-Total	709	619	113	112	--	2257	410	2426.00	151.64	6716.00	1007.49
TOTAL	706-9	x x	x x	x x	x x	6702	1380	6026.00	633.79	19914.00	3536.69

* Maintenance made necessary by breakdowns.

DESCRIPTION OF WORK DONE AND MATERIAL USED (for each unit separately)					
UNIT NO.	EQUIPMENT ITEM	WORK DONE	MAN HOURS	MATERIAL USED	COST OF MATERIAL
	Structures	Cleaned and painted north and west walls of turbine room.	175	Paint, etc.	\$ 56.90
1	Boiler	Rehabilitate boiler lining	640	Firebrick and clay	408.60
1	Turbine	Diaphragms and rotor blades blasted Repack seal rings	113	None Packing	43.25
2	Turbine	Diaphragms and rotor blades blasted	77	None	
3	Turbine	Removed secondary air ejector jet, realigned seat and reinstalled	17	None	
3	Turbine	Overhaul governor	181	Relay coil springs, links	104.64

(Use continuation sheets as necessary)

Both Operating and Maintenance Reports are to be filled out by the Cooperative and sent in Duplicate to REA, Power Division before the 15th of the following month.

MONTHLY PLANT OPERATING REPORT
HYDRO-ELECTRIC GENERATING PLANT

PAGE 1 OF 3 PAGES

BORROWER DESIGNATION Washington, D. C. 1 PLANT Great Falls MONTH ENDING April 30, 19 49

UNIT NO.	SIZE KW	HOURS OPERATED			GROSS GENERATION 1000 KWH		AVERAGE CFS	EFF.	FACTORS - % Load <u>85.4</u> Plant <u>88.7</u> R.P.C. <u>91.6</u> MAXIMUM DEMAND KW 15 Min. <u>5400</u> Ind. <u>5450</u>
		THIS YEAR	THIS MONTH	SINCE MAJOR OVERHAUL	THIS YEAR	THIS MONTH			
1	1600	2091	678	32,115	3135.0	1044.0	251	80.5	
2	1600	2062	698	34,545	2954.0	1079.0	249	81.3	
3	1200	2080	720	27,338	2047.0	728.0	164	80.6	
4	800	1967	700	19,356	1266.0	469.0	110	80.0	
5									
TOTAL	5200	x x x	x x x	x x x	9402.0	3320.0	733	81.0	
Station Service, 1000 KWH					174.0	60.0			
Net Generation, 1000 KWH					9228.0	3260.0			
Station Service, % of Gross					1.9	1.8			

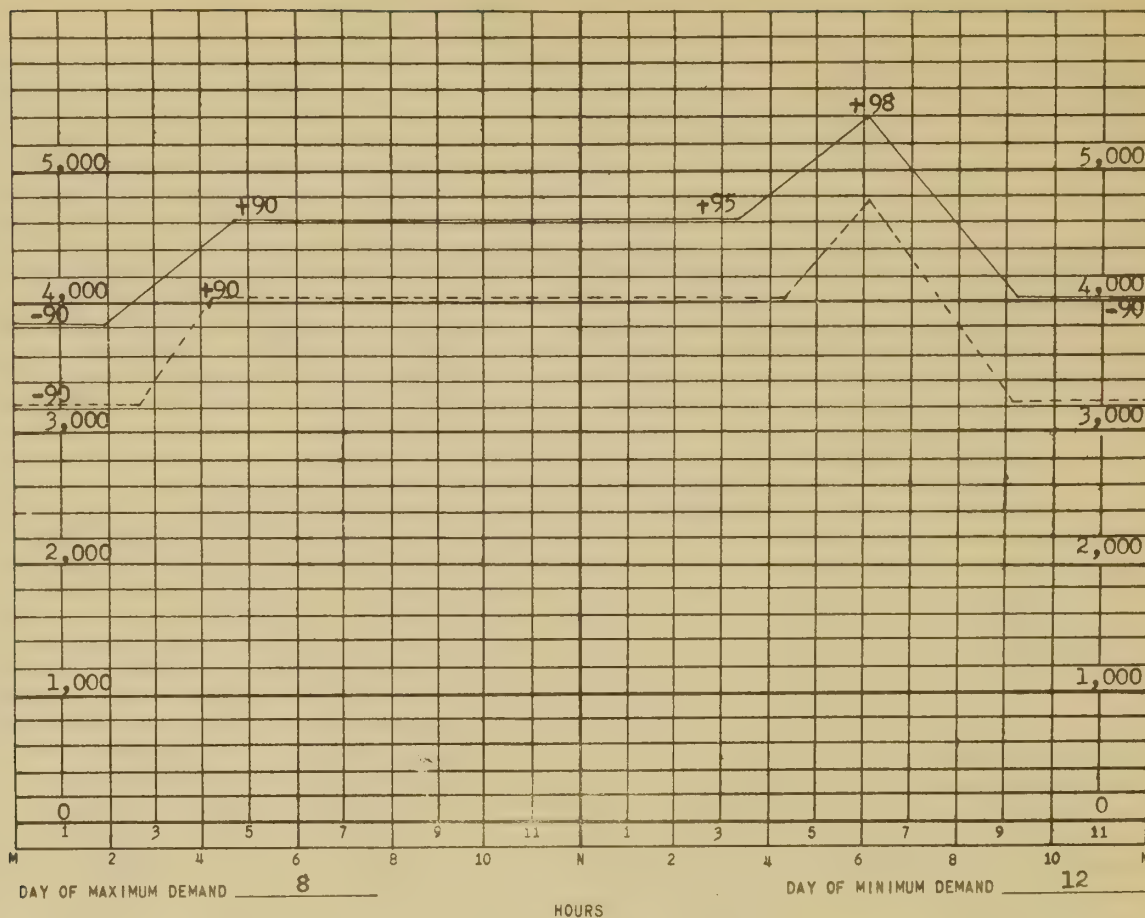
COST COMPUTATION OF NET ENERGY GENERATED						
ITEM NO.	EXPENSE ITEMS	REA ACCOUNT NUMBER	THIS YEAR		THIS MONTH	
			TOTAL DOLLARS	MILLS PER NET KWH	TOTAL DOLLARS	MILLS PER NET KWH
1	Operation, Supervision and Engineering	715	726.38	x x x	186.25	x x x
2	Station Labor	716	6,521.74	.707	1,672.24	.513
3	x x x x x x		x x x	x x x	x x x	x x x
4	x x x x x x		x x x	x x x	x x x	x x x
5	x x x x x x		x x x	x x x	x x x	x x x
6	Other Operating Supplies and Expenses	717,718	622.79	x x x	261.74	x x x
7	x x x x x x		x x x	x x x	x x x	x x x
8	Maintenance, Supervision and Engineering	719	41.68	x x x	11.00	x x x
9	Maint. Struc. and Improv. Labor	720	67.28	x x x	18.90	x x x
	" " " " Material	"	29.85	x x x	7.60	x x x
9a	Maint. Reservoirs, Dams, etc. Labor	721,723	228.73	x x x	59.41	x x x
	" " " " Material	"	62.51	x x x	26.50	x x x
9b	Maint. Generating & Elect. Equip. Labor	722	75.40	x x x	20.70	x x x
	" " " " Material	"	437.55	x x x	104.20	x x x
10	Sub-Total, Items 1 to 9b		8,813.91	.955	2,368.54	.727
11	Rents	724	180.00	x x x	45.00	x x x
12	Other Miscellaneous Expenses	725,726	59.75	x x x	15.60	x x x
13	TOTAL PRODUCTION EXP. Items 10 to 12		9,053.66	.981	2,429.14	.745
	OVERHEAD COSTS (PRORATED)		x x x	x x x	x x x	x x x
14	Depreciation	503.2	13,767.12	x x x	3,441.78	x x x
15	Taxes	507	11,623.18	x x x	2,914.82	x x x
16	Interest	530	15,514.32	x x x	3,878.58	x x x
17	Insurance	798,799	4,736.55	x x x	1,215.45	x x x
18	Other Administrative and General		3,649.56	x x x	762.39	x x x
19	TOTAL OVERHEAD COSTS, Items 14 to 18		49,290.73	5.341	12,213.02	3.746
20	TOTAL PRODUCTION COST, Item 13 + 19		58,344.39	6.322	14,642.16	4.491

HYDRAULIC DATA					MATERIAL & SUPPLIES INVENTORY	
READING	ELEVATION IN FEET		TURBINE PSI	VACUUM INCHES	On Hand, First of Month	\$ 1,255.45
	POOL	TAILRACE			Purchased During Month	900.00
Maximum	400	300	43.3	20.31	Used During Month	402.66
Minimum	396	316	34.6	6.18	On Hand, End of Month	1,752.79
Average	398	308	38.9	12.23		
Water Spilled <u>None</u> KWH						
LABOR				PLANT OUTAGES		
No. Full Time Employees	5			NO.	DURATION	REMARKS
No. Part Time Employees	4					
	REGULAR TIME	OVERTIME	TOTAL			
Man-Hours - Operation	1485	5	1490	1	20 min.	Lightning storm.
Man-Hours - Maintenance	68	20	88			
Man Hours - TOTAL	1553	25	1578			
				(Use reverse side if necessary)		

(See Other Side)

PLANT LOAD CURVE

PAGE 2 OF 3 PAGES



NOTE: Plot Maximum and Minimum Daily Load Curves with date of each, using Indicated Maximum Demand. Label each curve "+—" or "-—" at high and low points. (+ signifies leading P. F., - signifies lagging P.F.). Designate scale in kw.

Remarks:

DATE _____ SIGNED _____ TITLE _____

Both Operation and Maintenance Reports are to be filled out by the Cooperative and sent in *Duplicate* to the REA, Power Division before the 15th of the following month.

MONTHLY PLANT MAINTENANCE REPORT

HYDRO-ELECTRIC GENERATING PLANT

PAGE 3 OF 3 PAGES

 BORROWER DESIGNATION Washington, D. C. 1 PLANT Great Falls MONTH ENDING April 30, 1949

CLASSIFI- CATION OF EQUIPMENT AND UNITS	REA ACC'T NO.	HOURS OUT FOR MAINTENANCE				MAINTENANCE					
		ROUTINE		SPECIAL		LABOR MAN-HOURS		MATERIAL DOLLARS		LABOR & MATERIAL TOTAL DOLLARS	
		THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH
Superv. & Eng.	719	x x	x x	x x	x x	17	4	x x x	x x x	41.68	11.00
Struc. & Imp.	720	x x	x x	x x	x x	56	16	29.85	7.60	97.13	26.50
Res. & Dams, Etc	721	x x	x x	x x	x x	159	35	42.11	20.50	241.06	62.09
Generating & Elect. Equip.											
Unit No. 1	722	50	24	5	0	8	3	25.98	6.50	35.93	9.95
2	"	59	30	18	0	25	6	211.97	45.85	243.22	52.75
3	"	24	16	6	0	8	2	5.50	-0-	13.05	2.30
4	"	30	10	17	0	19	7	194.10	51.85	220.75	59.90
5	"										
General	"										
Sub-Total	722	163	80	46	--	60	18	437.55	104.20	512.95	124.90
Res. R. Bldg.	723	x x	x x	x x	x x	25	15	20.40	6.00	50.18	23.82
TOTAL	719-23	x x	x x	x x	x x	317	88	529.91	138.30	943.00	248.31

*Maintenance made necessary by breakdowns.

DESCRIPTION OF WORK DONE AND MATERIAL USED (for each unit separately)					
UNIT NO.	EQUIPMENT ITEM	WORK DONE	MAN-HOURS	MATERIAL USED	COST OF MATERIAL
	Struc. & Imp.	Finished painting walls.	16	Paint	\$ 7.60
	Res. & Dams.	Welded weak points in penstock.	35	Weld rod	20.50
2	Gen. Panel	Replaced Current Transformer.	1½	Current Transformer	32.00
				Misc.	<u>13.85</u>
					45.85
4	Gen. Panel	Replaced Ammeter & Leads.	7	Ammeter	47.00
				Misc.	<u>4.85</u>
					51.85

(Use continuation sheets as necessary)

Both Operating and Maintenance Reports are to be filled out by the Cooperative and sent in Duplicate to REA, Power Division before the 15th of the following month.

MONTHLY PLANT OPERATING REPORT

INTERNAL COMBUSTION ELECTRIC GENERATING PLANT

PAGE 1 OF 3 PAGES

BORROWER DESIGNATION **Washington, D. C. 1** PLANT **Potomac** MONTH ENDING **April 30,** 19 **49**

UNIT NO.	SIZE		HOURS OPERATED			GROSS GENERATION 1000 KWH		FUEL CONSUMPTION				LUBE OIL	
	HP	KW	THIS YEAR	THIS MONTH	TO DATE	THIS YEAR	THIS MONTH	OIL TOTAL GAL.	KWH GAL.	GAS TOTAL 1000 C.F.	C.F. KWH	TOTAL GAL.	HP. HRS. PER GAL.
1	625	400	2557	396	45584	860.52	207.60	15,050	13.79			82.00	3018
2	625	400	1838	342	49642	656.10	239.38	17,221	13.90			83.00	2575
3	625	400	612	301	47638	193.21	105.13	7,456	14.10			216.00	871
4	1500	1000	1516	476	9451	2061.20	134.57	9,894	13.60			103.25	6915
5	1500	1000	2505	525	4355	1728.45	332.60	24,101	13.80			173.25	4545
6													
7													
8													
TOTAL	4875	3200	x x	x x	x x	4499.48	1019.28	73,722	13.83			657.50	3271
Station Service, 1000 KWH						144.00	30.50	FACTORS - %				MAXIMUM DEMAND KWH	
Net Generation, 1000 KWH						4355.48	988.78	Load 52.0					
Station Service, % of Gross						3.2	3.0	Plant 44.2					
								R.P.C. 72.0					
												15 Min.	2725
												Ind.	2800

COST COMPUTATION OF NET ENERGY GENERATED						
ITEM NO.	EXPENSE ITEMS	REA ACCOUNT NUMBER	THIS YEAR		THIS MONTH	
			TOTAL DOLLARS	MILLS PER NET KWH	TOTAL DOLLARS	MILLS PER NET KWH
1	Operation, Supervision and Engineering	727	775.05	x x	216.75	x x
2	Station Labor	728	6,875.52	1.58	1,950.75	1.97
3	x x x x		x x x x	x x	x x x x	x x
4	Fuel, Oil	729.1	33,334.83	7.65	7,912.49	8.00
5	Fuel, Gas	729.2	-0-	--	-0-	--
6	Lubricating Oil	730.2	1,414.70	.32	377.14	.38
7	Other Operating Supplies and Expenses	730.1, 730.3, 730.4	342.73	x x	82.75	x x
8	Maintenance, Supervision and Engineering	731	171.01	x x	52.88	x x
9	Maint. Structures and Impr. Labor	732	257.02	x x	79.31	x x
	" " " " Material	"	91.36	x x	20.75	x x
9a	Maint., Fuel Holders & Access. Labor	733	212.51	x x	58.62	x x
	" " " " Material	"	110.50	x x	45.65	x x
9b	Maint., Generating & Elec. Equip. Labor	734	1,069.53	x x	337.94	x x
	" " " " Material	"	2,113.03	x x	464.81	x x
10	Sub-Total, Items 1 to 9b		46,767.79	10.74	11,599.84	11.73
11	Rents	735	120.00	x x	30.00	x x
12	Other Miscellaneous Expenses	736 to 737	25.65	x x	5.00	x x
13	TOTAL PRODUCTION EXP. Items 10 to 12		46,913.44	10.77	11,634.84	11.77
	OVERHEAD COSTS (PRORATED)		x x x x	x x	x x x x	x x
14	Depreciation	503.3	6,403.00	x x	1,600.75	x x
15	Taxes	507	4,865.88	x x	1,216.47	x x
16	Interest	530	4,153.44	x x	1,038.36	x x
17	Insurance	798, 799	792.34	x x	207.16	x x
18	Other Administrative and General		4,216.75	x x	962.45	x x
19	TOTAL OVERHEAD COSTS, Items 14 to 18		20,431.41	4.69	5,025.19	5.08
20	TOTAL PRODUCTION COST, Item 13 + 19		67,344.85	15.46	16,660.03	16.85

OPERATING INVENTORY	FUEL OIL			LUBE OIL		
	GALLONS	\$/GAL.	TOTAL \$	GALLONS	\$/GAL.	TOTAL \$
On Hand, First of Month	74,392	.10667	7935.40	2545.25	.5616	1429.30
Purchased During Month	54,964	.10734	5899.80	1247.00	.5812	724.79
Used During Month	73,722	.10733	7912.49	657.50	.5736	377.14
On Hand, End of Month	55,634	.10646	5922.71	3134.75	.5669	1777.09

Average BTU per Gal. Fuel Oil	139,400
Average BTU per C.F. Gas	
Average BTU per KWH - Fuel Oil	10,080
Average BTU per KWH - Gas	
Sp. Gr. - Fuel Oil - Deg. API	34°

LABOR			
No. Full Time Employees	9		
No. Part Time Employees	2		
	REG. TIME	OVERTIME	TOTAL
Man-Hours - Operation	1714	20	1734
Man-Hours - Maintenance	417	6	423
Man-Hours - TOTAL	2131	26	2157

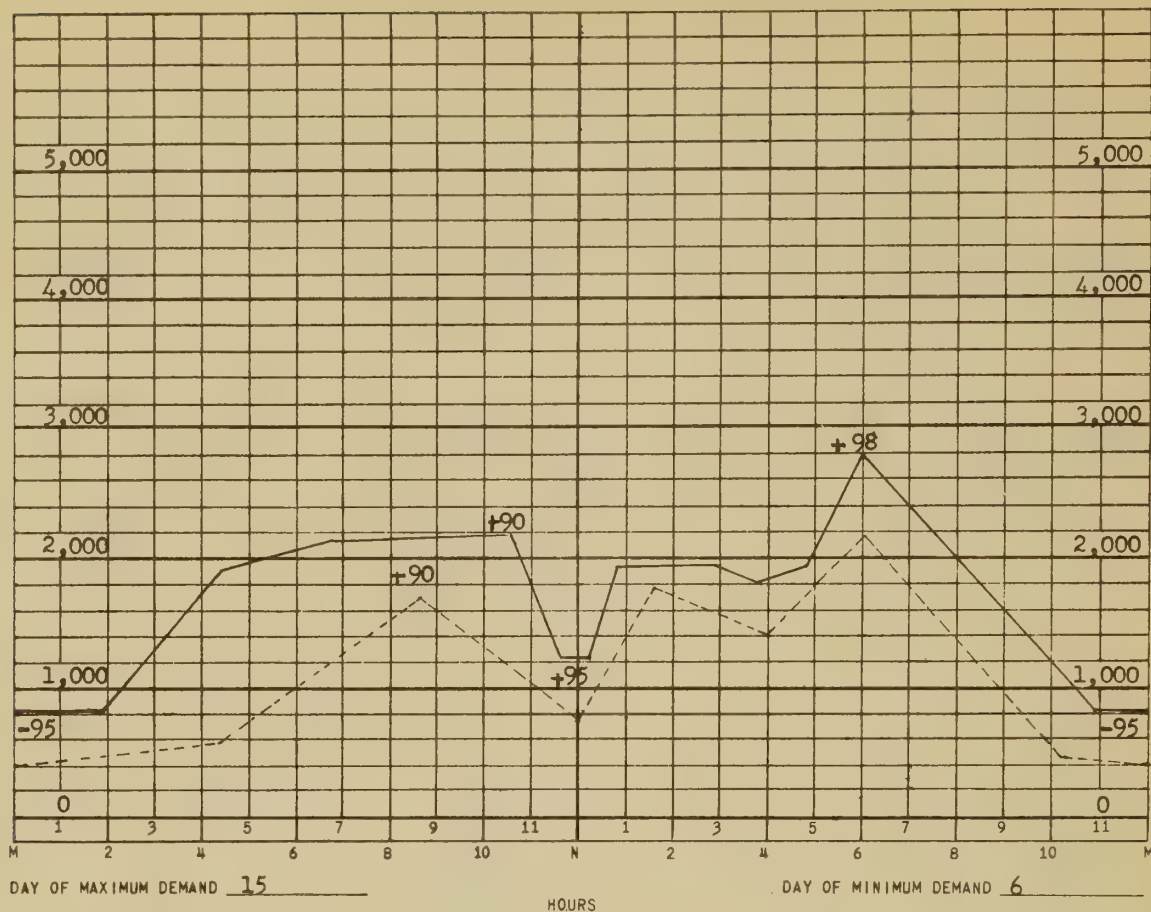
MATERIAL & SUPPLIES INVENTORY		
On Hand, First of Month	\$	1450.75
Purchased During Month		800.00
Used During Month		580.86
On Hand, end of Month		1669.89

PLANT OUTAGES		
NO.	DURATION	REMARKS
1.	4 hrs.	Water in day tanks.
(Use reverse side if necessary)		

(See Other Side)

PLANT LOAD CURVE

PAGE 2 OF 3 PAGES



NOTE: Plot Maximum and Minimum Daily Load Curves with date of each, using Indicated Maximum Demand. Label each curve "+" or "-" at high and low points. (+ signifies leading P. F., - signifies lagging P. F.). Designate scale in kw.

Remarks:

DATE _____ SIGNED _____ TITLE _____

Both Operation and Maintenance Reports are to be filled out by the Cooperative and sent in *Duplicate* to the REA, Power Division before the 15th of the following month.

MONTHLY PLANT MAINTENANCE REPORT

INTERNAL COMBUSTION ELECTRIC GENERATING PLANT

PAGE 3 OF 3 PAGES

 BORROWER DESIGNATION Washington, D. C. 1 PLANT Potomac MONTH ENDING April 30, 19 49

CLASSIFI- CATION OF EQUIPMENT AND UNITS	REA ACC'T NO.	HOURS OUT FOR MAINTENANCE				MAINTENANCE					
		ROUTINE		SPECIAL *		LABOR MAN-HOURS		MATERIAL DOLLARS		LABOR & MATERIAL TOTAL DOLLARS	
		THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH
Superv. & Eng.	731	x x	x x	x x	x x	68	21	x x x	x x x	171.01	52.88
Struc. & Imp.	732	x x	x x	x x	x x	210	67	91.36	20.75	348.38	100.06
Fuel Hldrs., Etc.	733	--	--	4-	4	180	51	110.50	45.65	323.01	104.27
Generating & Elect. Equip.											
Unit No. 1	734	119	91	12	4	263	241	619.76	393.27	934.21	681.13
2	"	193	2	13	5	297	11	703.21	18.23	1,052.10	31.50
3	"	123	1	10	3	238	7	607.50	11.02	845.06	19.64
4	"	21	2	4	4	53	13	103.42	21.30	188.09	36.56
5	"	14	3	7	5	46	12	79.14	20.99	163.10	33.92
6	"										
7	"										
8	"										
General	"										
Sub-Total	734	470	99	46	21	897	284	2,113.03	464.81	3,182.56	802.75
TOTAL	731-4	x x	x x	x x	x x	1355	423	2,314.89	531.21	4,024.96	1,059.96

* Maintenance made necessary by breakdowns.

DESCRIPTION OF WORK DONE AND MATERIAL USED (for each unit separately)					
UNIT NO.	EQUIPMENT ITEM	WORK DONE	MAN HOURS	MATERIAL USED	COST OF MATERIAL
1.	Struc. & Imp.	Floor & Wall painting.	67	Paint	\$ 20.75
	Fuel System	Removed water inadvertently pumped into system. Renewed certain pipe valves and fittings.	51	Piping, valves and misc. fittings	45.65
	Gen. Unit	General check and overhaul; dis-assembled, removed, checked, measured and recorded findings. Pistons, rings, piston pins, rods, rod bearings, main bearings, cylinder heads, valves, push rods, rocker arms, etc. Cleaned engine crankcase. Checked and measured liners - recorded. Reassembled, adjusted, aligned and checked. Cleaned checked and tested all injector spray nozzles. Checked timing, compression pressures, firing pressures, exhaust temperatures.	241	42 Piston rings	257.68
				1 Connecting rod bearing	95.45
				Misc. material	<u>40.14</u> 393.27
(Use continuation sheets as necessary)					

Both Operating and Maintenance Reports are to be filled out by the Cooperative and sent in Duplicate to REA. Power Division before the 15th of the following month.

MONTHLY PLANT OPERATING REPORT
INTERNAL COMBUSTION ELECTRIC GENERATING PLANT

PAGE 1 OF 3 PAGES

BORROWER DESIGNATION Washington, D. C. 1 PLANT Fairfax MONTH ENDING April 30, 19 49

UNIT NO.	SIZE		HOURS OPERATED			GROSS GENERATION 1000 KWH		FUEL CONSUMPTION				LUBE OIL	
	HP	KW	THIS YEAR	THIS MONTH	TO DATE	THIS YEAR	THIS MONTH	OIL TOTAL GAL.	KWH GAL.	GAS TOTAL 1000 C.F.	C.F. KWH	TOTAL GAL.	HP. HRS. PER GAL.
1	1440	1000	2057	450	8423	1310.5	250.0	2360		3865		47	13,787
2	1440	1000	2598	685	8326	1660.5	450.0	3797		5630		292	3,378
3	1090	750	2192	385	8255	1145.0	302.0	2650		4087		190	2,209
4													
5													
6													
7													
8													
TOTAL	3970	2750	x x	x x	x x	4116.0	1004.0	8807		13582		529	3,883
Station Service, 1000 KWH						133.4	35.0	FACTORS - \$				MAXIMUM DEMAND KWH	
Net Generation, 1000 KWH						3982.6	969.0	Load 66.8				15 Min. 2087	
Station Service, % of Gross						3.2	3.5	Plant 50.7				Ind. 2100	
								R.P.C. 70.5					

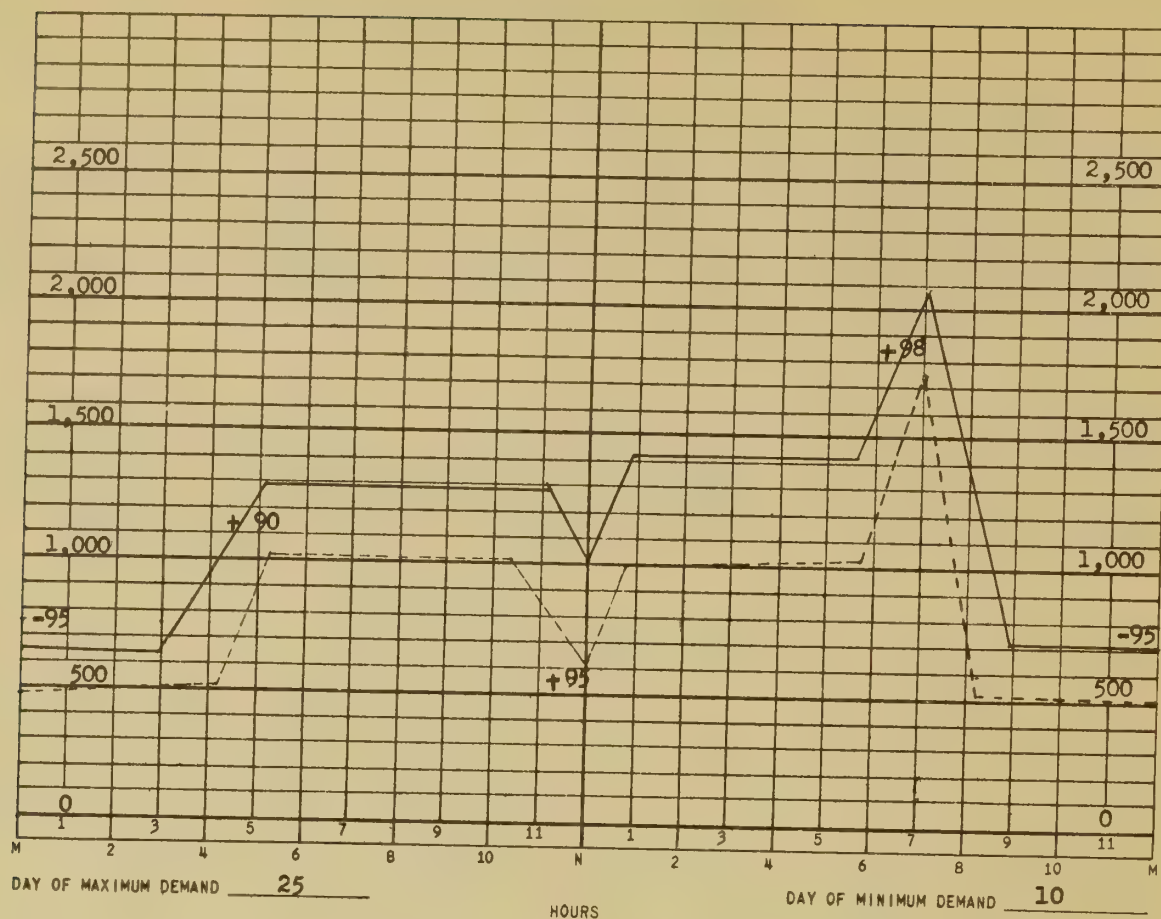
COST COMPUTATION OF NET ENERGY GENERATED							
ITEM NO.	EXPENSE ITEMS	REA ACCOUNT NUMBER	THIS YEAR		THIS MONTH		
			TOTAL DOLLARS	MILLS PER NET KWH	TOTAL DOLLARS	MILLS PER NET KWH	
1	Operation, Supervision and Engineering	727	587.82	x x	143.37	x x	
2	Station Labor	728	5,148.22	1.29	1,290.28	1.33	
3	x x x x		x x x x	x x	x x x x	x x	
4	Fuel, Oil	729.1	3,892.52	.98	973.17	1.00	
5	Fuel, Gas	729.2	9,510.12	2.39	2,444.76	2.52	
6	Lubricating Oil	730.2	1,274.20	.32	303.38	.31	
7	Other Operating Supplies and Expenses	730.1, 730.3, 730.4	1,102.50	x x	220.50	x x	
8	Maintenance, Supervision and Engineering	731	202.83	x x	79.01	x x	
9	Maint. Structures and Impr. Labor	732	797.31	x x	266.66	x x	
	" " " " Material	"	756.80	x x	189.20	x x	
9a	Maint., Fuel Holders & Access. Labor	733	383.30	x x	88.88	x x	
	" " " " Material	"	69.75	x x	15.50	x x	
9b	Maint., Generating & Elec. Equip. Labor	734	1,379.53	x x	355.55	x x	
	" " " " Material	"	3,801.47	x x	952.75	x x	
10	Sub-Total, Items 1 to 9b		28,906.37	7.26	7,323.01	7.56	
11	Rents	735	200.00	x x	50.00	x x	
12	Other Miscellaneous Expenses	736 to 737	179.65	x x	45.48	x x	
13	TOTAL PRODUCTION EXP. Items 10 to 12		29,286.02	7.35	7,418.49	7.66	
	OVERHEAD COSTS (PRORATED)		x x x x	x x	x x x x	x x	
14	Depreciation	503.3	6,250.00	x x	1,562.50	x x	
15	Taxes	507	2,462.88	x x	615.72	x x	
16	Interest	530	4,153.44	x x	1,038.36	x x	
17	Insurance	798, 799	766.45	x x	197.54	x x	
18	Other Administrative and General		3,369.36	x x	877.69	x x	
19	TOTAL OVERHEAD COSTS, Items 14 to 18		17,002.13	4.27	4,291.81	4.43	
20	TOTAL PRODUCTION COST, Item 13 + 19		46,288.15	11.62	11,710.30	12.09	

OPERATING INVENTORY		FUEL OIL			LUBE OIL		
		GALLONS	\$/GAL.	TOTAL \$	GALLONS	\$/GAL.	TOTAL \$
On Hand, First of Month		9405	.1105	1039.25	299	.5735	171.48
Purchased During Month		2300	.1105	254.15	1300	.5735	747.55
Used During Month		8807	.1105	973.17	529	.5735	303.38
On Hand, End of Month		2898	.1105	320.23	1070	.5735	613.65
Average BTU per Gal. Fuel Oil		149,684			MATERIAL & SUPPLIES INVENTORY		
Average BTU per C.F. Gas		977			On Hand, First of Month \$ 2,290.75		
Average BTU per KWH - Fuel Oil		1,312			Purchased During Month 960.55		
Average BTU per KWH - Gas		13,209			Used During Month 1,352.45		
Sp. Gr. - Fuel Oil - Deg. API		180			On Hand, end of Month 1,898.85		
LABOR				PLANT OUTAGES			
No. Full Time Employees		6		NO.	DURATION	REMARKS	
No. Part Time Employees		3					
Man-Hours - Operation		REG. TIME	OVERTIME	None			
Man-Hours - Maintenance		1131	16				
Man-Hours - TOTAL		543	89				
		1674	105	(Use reverse side if necessary)			

(See Other Side)

PLANT LOAD CURVE

PAGE 2 OF 3 PAGES



NOTE: Plot Maximum and Minimum Daily Load Curves with date of each, using Indicated Maximum Demand. Label each curve "+—" or "-—" at high and low points. (+ signifies leading P. F., - signifies lagging P. F.). Designate scale in kw.

Remarks:

DATE _____ SIGNED _____ TITLE _____

Both Operation and Maintenance Reports are to be filled out by the Cooperative and sent in *Duplicate* to the REA. Power Division before the 15th of the following month.

MONTHLY PLANT MAINTENANCE REPORT

INTERNAL COMBUSTION ELECTRIC GENERATING PLANT

PAGE 3 OF 3 PAGES

 BORROWER DESIGNATION Washington, D. C. 1 PLANT Fairfax MONTH ENDING April 30 1949

CLASSIFI- CATION OF EQUIPMENT AND UNITS	REA ACC'T NO.	HOURS OUT FOR MAINTENANCE				MAINTENANCE					
		ROUTINE		SPECIAL *		LABOR MAN-HOURS		MATERIAL DOLLARS		LABOR & MATERIAL TOTAL DOLLARS	
		THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH	THIS YEAR	THIS MONTH
Superv. & Eng.	731	x x	x x	x x	x x			x x x	x x x		
Struc. & Imp.	732	x x	x x	x x	x x						
Fuel Hldrs., Etc.	733										
Generating & Elect. Equip.											
Unit No. 1	734										
2	"										
3	"										
4	"										
5	"										
6	"										
7	"										
8	"										
General	"										
Sub-Total	734										
TOTAL	731-4	x x	x x	x x	x x						

* Maintenance made necessary by breakdowns.

DESCRIPTION OF WORK DONE AND MATERIAL USED (for each unit separately)					
UNIT NO.	EQUIPMENT ITEM	WORK DONE	MAN HOURS	MATERIAL USED	COST OF MATERIAL
		<p>Prepare the Maintenance Report Form for Dual-Fuel Plant in the same manner as for a Diesel Plant.</p> <p>See Maintenance Report of Potomac Plant for details.</p>			\$
(Use continuation sheets as necessary)					

Both Operating and Maintenance Reports are to be filled out by the Cooperative and sent in *Duplicate* to REA, Power Division before the 15th of the following month.

MONTHLY PLANT OPERATING REPORT TRANSMISSION PLANT

PAGE 1 OF 2 PAGES

BORROWER
DESIGNATION Washington, D. C. 1

MONTH
ENDING April 30, 1949

COMPUTATION OF TRANSMISSION PLANT EXPENSE							
ITEM NO.	EXPENSE ITEMS	REA ACCOUNT NUMBER	DOLLARS - THIS YEAR		DOLLARS - THIS MONTH		
			LINES	SUBSTATIONS	LINES	SUBSTATIONS	
OPERATION							
1	Supervision and Engineering	743	496.00	483.00	125.00	125.00	
2	Load Dispatching	744	5765.00	x x x	1450.00	x x x	
3	Operation of Substations	745	x x x	6497.00	x x x	1680.00	
4	Operation of Lines	746	7060.00	x x x	1805.00	x x x	
5	TOTAL OPERATION, Items 1 to 4		13321.00	6980.00	3380.00	1805.00	
MAINTENANCE							
6	Supervision and Engineering	747	467.00	425.00	125.00	125.00	
7	Structures and Improvements	748	x x x	625.00	x x x	165.00	
8	Station Equipment	749	x x x	9516.00	x x x	2416.00	
9	Overhead and Underground Systems	750, 751	7543.00	x x x	1968.00	x x x	
10	Roads and Trails	752	628.00	x x x	162.00	x x x	
11	TOTAL MAINTENANCE, Items 6 to 10		8638.00	10566.00	2255.00	2706.00	
12	Rents	753	100.00	--	25.00	--	
13	Other Miscellaneous Expenses	754, 755	78.00	--	--	--	
14	TOTAL TRANS. EXP., Items 5 + 11 + 12 + 13		22137.00	17546.00	5660.00	4511.00	
OVERHEAD COSTS (PRORATED)							
15	Depreciation	503.4	x x x	x x x	x x x	x x x	
16	Taxes	507	31850.00	24650.00	7984.00	6166.00	
17	Interest	530	9448.00	7312.00	2362.00	1828.00	
18	Insurance	798,799	23452.00	16612.00	5863.00	4153.00	
19	Other Administrative and General Exp		750.00	1015.00	200.00	425.00	
20	TOTAL OVERHEAD COSTS, Items 15 to 19		6900.00	4625.00	1700.00	1300.00	
21	TOTAL TRANSMISSION COSTS, Items 14 + 20		72400.00	54214.00	18109.00	13872.00	
22	Average Cost per Mile		94537.00	71760.00	23769.00	18383.00	
23	Average Cost per KVA		\$ 134.09	x x x	\$ 33.71	x x x	
24	Average Trans. Cost per Net KWH		x x x	\$.6613	x x x	\$.1694	
			1.43	Mills	1.40	Mills	

MAINTENANCE											
ITEM	KV	MILES IN SERVICE	EXPENSES								
			MATERIALS		LABOR & OTHER				MAT'L + LABOR - \$		
			TOTAL \$	PER MI.	MAN-HOURS	PER MI.	TOTAL \$	PER MI.	TOTAL	PER MI.	
TRANS. LINES	34.5	325	495.00	1.52	260	.80	330.00	1.01	825.00	2.53	
	44	75	135.00	1.80	70	.93	90.00	1.20	225.00	3.00	
	69	180	396.00	2.20	210	1.17	264.00	1.47	660.00	3.67	
	115	125	327.00	2.62	175	1.40	218.00	1.74	545.00	4.36	
TOTAL-LINES		x x x	705	1353.00	1.92	715	1.01	902.00	1.28	2255.00	3.20
SUB-STATIONS	KV	NO. IN SERVICE	KVA IN SERVICE	TOTAL \$	PER KVA	MAN-HOURS	PER KVA	TOTAL \$	PER KVA	TOTAL \$	PER KVA
	34.5	8	10,500	110.40	.011	60	x	73.60	.007	184.00	.018
	44	2	5,000	60.00	.012	30	x	40.00	.008	100.00	.020
	69	4	49,000	661.20	.013	350	x	440.80	.009	1102.00	.022
	115	2	44,000	792.00	.018	420	x	528.00	.012	1320.00	.030
TOTAL-SUBSTA.		16	108,500	1623.60	.015	860	.008	1082.40	.010	2706.00	.025

LABOR				MATERIAL & SUPPLIES INVENTORY			
No. Full Time Employees	11			On Hand First of Month	\$ 15,000.00		
No. Part Time Employees	9			Purchased During Month	5,000.00		
	REGULAR TIME	OVERTIME	TOTAL	Used During Month	3,100.00		
Man-Hours - Operation	1840	162	2002	On Hand End of Month	16,900.00		
Man-Hours - Maintenance	1565	10	1575	VEHICLES			
Man-Hours - TOTAL	3405	172	3577	3/4 Ton or Less	NO.	MILES	COST OF OPERATION - \$
				over 3/4 Ton	4	2400	168.00
					2	1090	120.00

TRANSMISSION PLANT OUTAGES						
DATE	HOUR	LOCATION OF TROUBLE	SYSTEM AFFECTED	DURATION	KWH LOST	CAUSE AND REMARKS
4-6	2 PM	Line A, poles 62-63	Subs A & B out	1.5 hrs.	5250	Storm blew tree on line
4-19	8:30PM	OCB Line B	Subst. C out	0.02 hrs.	120	OCB tripped due to lightning

(Use reverse side if necessary)
(See Other Side)

PART IV

Preparation of the Annual Utility Plant Report

Form ADM-39F

Form ADM-39F - Annual Cost of Utility Plant Report.

This report is to be prepared as of the end of each calendar year and should be included as a part of the regular December report. The first reports, however, should cover the year 1949 and be submitted with the January 1950 Monthly Summary and Plant Operating Reports. Succeeding reports should be prepared and submitted as of the end of the year along with the other reports for the month of December.

Form ADM-39F - Annual Cost of Utility Plant Report.

This report is designed to show the cost of the various items of utility plant in service and is to be filed by both Power Type Borrowers and Selected Distribution Borrowers with generation facilities. It is to be used as the basis for pro-rating the overhead costs to the ADM-39E Monthly Operating Report forms. Detailed instructions on its preparation by items are given below:

Items:

1. Electric Plant Leased to Others.
2. Electric Plant Held for Further Use.
Balances carried under accounts 100.2 or 100.4 are to be reported under these items. This balance should be broken down by plant values, such as generation, transmission or distribution and should be shown in the space provided. If more than one type of plant is involved the cost of each should be shown separately. These costs are to be divided between "non-depreciable" and "depreciable" values. This division should be based on the depreciation register.
3. Intangible Plant.
The balances in accounts 301, 302 and 303 should be reported under this item.
4. Production Plant.
The balances of accounts 310 through 336 should be reported under this item. These balances are to be broken down by individual generating plants. Space is provided for 12 separate plants. This space is arranged in three rows with provision for four plants. It is suggested that the first row be used for steam plants, the second row be for hydro

plants, and the third row be for internal combustion plants. If the number of plants involved will not permit this arrangement then steam plants should be shown first followed by hydro and Diesel. The account number need only be shown in the space provided when the type of plant changes. The costs of each plant are to be divided between "non-depreciable" and "depreciable" values. This division should be based on the depreciation register.

5. Transmission Plant.

This item covers the balances of accounts 340 through 349.

6. Distribution Plant.

This item covers the balances of accounts 350 through 363.

7. General Plant.

This item covers the balances of accounts 370 through 379.

Items of equipment fully depreciated should be shown as "non-depreciable".

8. Electric Plant Purchased.

9. Electric Plant Sold.

10. Donations in aid of Construction - Credit.

11. Unclassified Plant In Service.

The balances of accounts 391, 392, 393 and 100.6 should be reported in the space provided for these items. The type of plant involved, such as generation, transmission or distribution should be shown. If more than one type of plant is involved the cost of each should be given separately. These costs are to be divided between "depreciable" and "non-depreciable" values. This division should be based on the depreciation register.

Summary

The values of each type of plant are to be summarized in this space. The grand total of this summary must agree with Line 14, Schedule B of Form ADM-39A. The various item totals may not reconcile with those of Schedule B as the items are composed of different combinations of plants.

ANNUAL COST OF ELECTRIC PLANT REPORT

BORROWER

DESIGNATION Washington D. C. 1 IndependenceYEAR ENDING December 31, 19 481. Electric Plant Leased to Others, and2. Electric Plant Held for Future

TYPE OF PLANT:		TYPE OF PLANT:	
ACC'T.	NON-DEPRECIABLE	DEPRECIABLE	DEPRECIABLE
100.2	\$	\$	\$
100.4			
TOTAL	\$	\$	\$

3. Intangible Plant

ACC'T.	AMOUNT
301	\$ 1,255.00
302	100.00
303	15,000.00
TOTAL	\$ 16,355.00

PLANT NAME: <u>Moult Vernon</u>	
ACC'T.	NON-DEPRECIABLE
310	\$ 93,370.00
311	993,000.00
312	1,987,000.00
313	3,014,000.00
314	2,454,000.00
315	546,130.00
316	250,000.00
TOTAL	\$ 8,251,130.00
PLANT TOTAL	\$ 9,337,500.00

PLANT NAME: <u>Great Falls</u>	
ACC'T.	NON-DEPRECIABLE
320	\$ 720,000.00
321	96,300.00
322	143,700.00
323	850,500.00
324	208,000.00
325	115,500.00
326	78,200.00
TOTAL	\$ 1,523,700.00
PLANT TOTAL	\$ 2,340,000.00

PLANT NAME: <u>Fairfax</u>	
ACC'T.	NON-DEPRECIABLE
330	\$ 15,000.00
331	20,000.00
332	115,000.00
333	41,200.00
334	248,500.00
335	40,300.00
336	148,700.00
TOTAL	\$ 37,300.00
PLANT TOTAL	\$ 625,000.00

PLANT NAME:	
ACC'T.	NON-DEPRECIABLE
	\$
TOTAL	\$
PLANT TOTAL	\$

PLANT NAME:	
ACC'T.	NON-DEPRECIABLE
	\$
TOTAL	\$
PLANT TOTAL	\$

PLANT NAME: <u>Potomac</u>	
ACC'T.	NON-DEPRECIABLE
330	\$ 4,500.00
331	27,200.00
332	114,800.00
333	46,100.00
334	304,000.00
335	47,600.00
336	105,400.00
TOTAL	\$ 640,300.00
PLANT TOTAL	\$ 672,000.00

PLANT NAME:	
ACC'T.	NON-DEPRECIABLE
	\$
TOTAL	\$
PLANT TOTAL	\$

PLANT NAME:	
ACC'T.	NON-DEPRECIABLE
	\$
TOTAL	\$
PLANT TOTAL	\$

PLANT NAME:	
ACC'T.	NON-DEPRECIABLE
	\$
TOTAL	\$
PLANT TOTAL	\$

PLANT NAME:	
ACC'T.	NON-DEPRECIABLE
	\$
TOTAL	\$
PLANT TOTAL	\$

PLANT NAME:	
ACC'T.	NON-DEPRECIABLE
	\$
TOTAL	\$
PLANT TOTAL	\$

PLANT NAME:	
ACC'T.	NON-DEPRECIABLE
	\$
TOTAL	\$
PLANT TOTAL	\$

ANNUAL COSTS OF ELECTRIC PLANT REPORT

BORROWER DESIGNATION Washington, D. C. 1 Independence

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YEAR ENDING December 31, 19 48

5. Transmission Plant

ACC'T.	AMOUNT	NON-DEPRECIABLE	DEPRECIABLE
340	\$ 60,000.00	\$ 60,000.00	\$
341	198,500.00	198,500.00	
342	---		
343	2,656,000.00		2,656,000.00
344	1,792,700.00		1,792,700.00
345	---		
346	1,379,200.00		1,379,200.00
347			
348			
349	17,100.00		17,100.00
TOTAL	6,103,500.00	258,500.00	5,845,000.00

6. Distribution Plant

ACC'T.	AMOUNT	NON-DEPRECIABLE	DEPRECIABLE
350	\$	\$	\$
351			
352			
354			
355			
356			
357			
358			
359			
360			
361			
362			
363			
TOTAL	\$	\$	\$

7. General Plant

ACC'T.	AMOUNT	NON-DEPRECIABLE	DEPRECIABLE
370	\$ 400.00	\$ 400.00	\$
371	750.00		750.00
372	18,200.00		18,200.00
373	75,400.00	30,200.00	45,200.00
374	500.00		500.00
375	22,000.00		22,000.00
376	4,500.00		4,500.00
377	29,000.00		29,000.00
378	2,800.00		2,800.00
379	6,500.00		6,500.00
TOTAL	\$ 160,050.00	\$ 30,600.00	\$ 129,450.00

8. Electric Plant Purchased (Acc't. 391)

9. Electric Plant Sold (Acc't. 392)

10. Donations in Aid of Construction - Credit (393)

11. Unclassified Plant in Service (100.6)

ACC'T.	AMOUNT	TYPE OF PLANT: Steam (Mt. Vernon)		TYPE OF PLANT: Hydro (Great Falls)		TYPE OF PLANT: Transmission		TYPE OF PLANT: Transmission	
		NON-DEPRECIABLE	DEPRECIABLE	NON-DEPRECIABLE	DEPRECIABLE	NON-DEPRECIABLE	DEPRECIABLE	NON-DEPRECIABLE	DEPRECIABLE
391	\$ 100,000.00	\$	\$	\$	\$	\$	\$	\$ 1,500.00	\$ 98,500.00
392									
393	(5,000.00) Cr.	(5,000.00) Cr.							
100.6	348,000.00			5,000.00					
TOTAL	\$ 442,000.00	\$ (5,000.00)	\$	\$ 5,000.00	\$ 131,000.00	\$ 209,000.00	\$ 209,000.00	\$ 1,500.00	\$ 98,500.00

SUMMARY

TYPE OF PLANT		SUMMARY		TOTAL	
NON-DEPRECIABLE	DEPRECIABLE	NON-DEPRECIABLE	DEPRECIABLE	NON-DEPRECIABLE	DEPRECIABLE
12. Intangible Plant		\$	\$ 16,355.00	\$	\$ 16,355.00
13. Production Plant - Steam		1,081,370.00	8,251,130.00	9,332,500.00	
14. Production Plant - Hydraulic		821,300.00	1,654,700.00	2,476,000.00	
15. Production Plant - Internal Combustion		66,700.00	1,265,300.00	1,332,000.00	
16. Transmission Plant		263,000.00	6,152,500.00	6,415,500.00	
17. Distribution Plant					
18. General Plant		30,600.00	129,450.00	160,050.00	
TOTAL	\$ 2,262,970.00	\$ 19,469,435.00	\$ 19,732,405.00		

